ANNUAL ADMINISTRATION REPORT

OF THE

FOREST DEPARTMENT

OF THE

MADRAS PRESIDENCY

FOR THE

TWELVE MONTHS ENDING 30TH JUNE 1915.

1914-1915.

MADRAS:
PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRESS.

...nnas.] 1916. [1 *shilling* 9 *pence*.

E
8557

E08557

ANNUAL ADMINISTRATION REPORT

OF THE

FOREST DEPARTMENT

OF THE

MADRAS PRESIDENCY

FOR THE

TWELVE MONTHS ENDING 30TH JUNE 1915

1914-1915.

MADRAS:
PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRESS.

1915.

INDEX.

FOREST ADMINISTRATION REPORT,

MADRAS PRESIDENCY,

NORTHERN CIRCLE, 1914–1915.

Chapter.	Subject.	Paras.
I	Constitution of State forests—	
	1. Alteration in area	1
	2. Forest settlement	2
	3. Demarcation	3
	4. Forest surveys	4 & 5
II	Management of State forests—	
	1. Regulation of management—	
	(*a*) Preparation and control of regular working-plans ...	6 & 7
	(*b*) Annual plan of operations	8
	2. Communications and buildings—	
	(*a*) Roads and bridges	9
	(*b*) Buildings	9
	(*c*) Miscellaneous works	9
	3. Protection of forests—	
	(*a*) General protection	10 to 14
	(*b*) Protection from fire	15 to 17
	(*c*) Protection from cattle	18 & 19
	(*d*) Protection against injuries from natural causes ...	20
	4. Sylviculture—	
	(*a*) Natural reproduction	21
	(*b*) Artificial reproduction	22
	(*c*) Operations for the improvement of growing stock ...	23
	(*d*) Experiments	24
	5. Exploitation—	
	(*a*) System of management	25
	(i) Major forest produce	26 to 32
	(ii) Minor forest produce	33 to 36
	(*b*) Agency of exploitation—	
	(i) Government	37
	(ii) Purchasers	38
	(iii) and (iv) Right and privilege holders and Free-grantees	39
	(*c*) Outturn and sources of forest produce	40
III	Financial results	41
IV	Administration	42 to 51
V	General	52 to 64
	Appendices A, B and Forms Nos. 65 to 67 and 69 to 85.	

OFFICE OF THE CONSERVATOR OF FORESTS.
NORTHERN CIRCLE,
WALTAIR, 11*th* *September* 1915.

R.C. No. 1664 of 1915.

From

A. W. LUSHINGTON, ESQ., C.I.E.,
CONSERVATOR OF FORESTS,
Northern Circle,

To

THE SECRETARY TO THE COMMISSIONERS OF
LAND REVENUE AND FORESTS,
Madras.

SIR,

I have the honour to submit herewith my report on the Forest Administration of the Northern Circle for the year 1914–15.

I have the honour to be,
Sir,
Your most obedient servant,
A. W. LUSHINGTON,
Conservator of Forests, Northern Circle.

FOREST ADMINISTRATION REPORT OF THE NORTHERN CIRCLE

FOR THE

FOREST YEAR ENDING 30TH JUNE 1915.

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

1. Alteration in Area.

The following statement shows the abstract of changes in forest areas :—

Class.	Area on 1st July 1914.	Added during the year.	Excluded during the year.	Net increase or decrease.	Area on 30th June 1915.
	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Reserved forests	4,614	13	11	+ 2	4,616
Reserved lands	507	1	8	— 7	500
Leased forests	2	..	..	..	2
Total ..	+ 5,123	14	19	— 5	5,118

Eight square miles in *Vizagapatam* were finally constituted reserved forests and 5 square miles added in *Kistna* by rectification of boundaries ; while again 11 square miles were disafforested in the latter district. One square mile in *Vizagapatam* was made reserved land. The other changes are of minor importance.

2. Forest Settlement.

2. Fifteen blocks (507 square miles) remained to be settled at the commencement of the year, to which two (·60 square mile) were added during the year ; of these, three blocks (8·19 square miles) were transferred to reserved forests leaving 14 blocks (498·98 square miles) pending at the end of the year. Of these 14, two were with the Board, one returned for correction, two with the Collector, one pending decision of an appeal before the Privy Council and settlement was proceeding in respect of 8 blocks (352·15 square miles) in *Upper Gōdāvari*.

3. Demarcation.

3. One hundred and seven miles of external demarcation was carried out in *Ganjām* at a cost of Rs. 2,450 and 3,865 miles were repaired at a cost of Rs. 3,275 and 1,297 miles were recleared by the Forest subordinates free of cost. The average cost per mile of fresh demarcation was Rs. 22–14–4 and repair Re. 0–13–7 against Rs. 22–7–7 and Rs. 7–13–4 in the previous year.

4. Forest Surveys.

(*a*) *By Survey of India.*

4. No new work was undertaken during the year. The index maps of the three divisions of *Kurnool* are still under different stages of preparation.

(*b*) *By Departmental Survey.*

5. During the year Rs. 10,560 were spent on Forest Surveys and maps for 502 square miles of reserved forests are yet to be done —124 square miles in *Kistna*, 3 in *Kurnool East*, 95 in *Kurnool South* and 280 in *Kurnool West*. The departmental work that was carried out during the year consisted chiefly of the verification of boundaries, alignment of roads and fire lines and preparation of coupe and working

plan and other maps. Out of seventeen selected blocks, 10 blocks comprising an area of 120 square miles in the Rampa territory (including Guditeru and Datsarty muttahs) in *Gōdāvari Lower* were surveyed but maps were not prepared.

Dupati survey.—The ten appeals pending at the end of previous year were disposed of during the year.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

1. Regulation of Management.

(*a*) *Preparation and Control of Regular Working Plans.*

6. *Preparation.*—In most of the districts Working Plans are still being delayed by the preliminary classification of reserves under the Forest Committee's report. But in *Ganjām* a tentative Working Plan for the Mohiri hills of Berhampur range has been sanctioned. In *Gōdāvari Lower* the preliminary Working Plans prepared for the Gokavaram and Peddapur ranges were returned for revision with reference to the said classification and in *Kurnool West* an additional provision in the Working Plan for the pollarding of Yepi trees (*Hardwickia binata*) in the grazing areas of the Yerramalais for rope fibre is awaiting the sanction of the Board. The Working Plans for other districts are under different stages of preparation as also one for the Alamore palmyra tope in *Kurnool West.*

7. *Control.*—The prescriptions of the Working Plans were generally adhered to except in the following cases. In *Ganjām* the accumulated balances of forest unworked in previous years were partly worked during the year and four bamboo coupes and 2 fuel coupes which were not provided for in the Working Plan were worked out to meet local demand. In *Kistna* the construction of the walls round the reserves in Bezwada taluk and round those in Ellore range was put a stop to and prickly-pear fencing was made instead. In *Kurnool West* cultural operations in the Yerramalais were abandoned, and the working of timber coupes in Atmakur, Velgode and Nandyal ranges was continued under coppice with standard system until September 1914 when work in the coupes was stopped.

(*b*) *Annual Plan of Operations.*

8. The sanctioned plans were generally followed, except as detailed under Working Plans above and in the following cases. In *Ganjām* Ramagodo and Thinikondia coupes were leased to contractors, fencing of one compound completed and another begun and a well was sunk in the Extra Assistant Conservator's bungalow at Russellkonda. Construction of a fourth bridge over Odangi Nalla was not started and two bridle-paths abandoned in Pondakhol range. In *Vizagapatam* a bamboo coupe was worked departmentally for want of a contractor, in *Gōdāvari Upper* a well was postponed, in *Kistna* certain minor works in the three ranges were given up and in *Kurnool West* fencing the compound at Pecheruvu was carried out while the gang sheds in the Dhone range were abandoned. In *Gōdāvari Lower* and *Kurnool South* certain buildings and roads were given up, preference being given to those of a more urgent nature.

2. Communications and Buildings.

9. The following figures compare the outlay on communications and buildings :—

	1913–14.	1914–15.
	RS.	RS.
Roads and bridges	31,588	32,333
Buildings	43,789	31,216
Other works	8,869	3,096

The increase under roads is due to the construction of five new roads in *Gōdāvari Upper* (Koya work), one earthern road made in *Gōdāvari Lower* and largely to the contribution of Rs. 5,000 to the Local Fund Department towards the maintenance of the two Nallamalais ghat roads from each of the *Kurnool East* and *Kurnool South* districts.

(*a*) *Roads and Bridges.*

The important works of a permanent nature executed during the year were the following :—

Ganjām.—Four miles of new roads and the Tarsingi-Jadadhara road were completed, 51 miles of existing roads repaired and a third bridge over Odangi Nalla was partly constructed.

Gōdāvari Upper.—Five new roads were in progress.

Gōdāvari Lower.—More than two miles of an earthern road from Sarabhavaram to Boyapadu was completed and 82 miles of existing roads were repaired.

Kistna.—The Nallacherla-Kodegudem road was completed and Errakuruva hill road was partly constructed.

Kurnool East.—Nine miles of bridle-path were converted into cart-track. Three bridle-paths over a length of 11 miles and 5 miles of foot-path constructed and 30 miles of foot-path were converted into bridle-path.

Kurnool South.—Four miles of bridle-path was made and about 58 miles of existing roads were improved and repaired. A sum of Rs. 5,000 was contributed to the Local Board from each of the *Kurnool East* and *Kurnool South* divisions for the maintenance of the Mantralakanama and Nandikanama ghat roads respectively.

Kurnool West.—Two cart-tracks of $\frac{1}{4}$ and $1\frac{1}{2}$ miles long in Gundlabrahmeswaram range were constructed and a cutting in the Adutla road was made to reduce the gradient.

(*b*) *Buildings.*

The important works of a permanent nature carried out during the year were the following: rest-house at Chahali in *Ganjām* and at Sudikonda in *Gōdāvari Lower* completed and inspection sheds at Tummalabailu and Chintala in *Kurnool East* nearly completed. Range quarters at Jangareddigudem in *Gōdāvari Lower* in progress and the range quarters at Eguvacherlopalli in *Kurnool East* completed, subordinates' quarters at Urrinka and Jangareddigudem in *Gōdāvari Lower*, at Chinnamantrala in *Kurnool East*, at Malakondapenta and Mahanandi in *Kurnool South* were completed. Range inspection shed at Nekkanti in *Kurnool East* and Kutcha quarters for a Deputy Ranger at Isukagundam in *Kurnool South* and sheds for subordinates in *Kurnool West* were also constructed, and additions such as out-houses kitchens, stables, etc., to existing buildings, and sheds to house forest guards and forest watchers, etc.

(*c*) *Miscellaneous Works.*

The chief works done were the construction and repair of tanks, wells and springs and digging and widening channels. Bunds were also erected across streams and streamlets in the Gundlabrahmeswaram range in *Kurnool West.*

3. Protection of Forests.

(*a*) *General Protection.*

10. The following statement shows the number and classification of forest offences brought to light during the year :—

Cases.	Injury to forests by fire.		Unauthorised felling or appropriation of wood and minor forest produce.		Grazing without permission or in forests in which grazing is prohibited.		Other offences.		Total.	
	1913–14.	1914–15	1913–14.	1914–15.	1913–14.	1914–15.	1913–14.	1914–15.	1913–14.	1914–15.
Cases taken into court ..	9	8	485	462	174	194	54	63	722	727
Cases compounded ..	5	5	2,111	1,812	742	706	134	132	2,992	2,655
Cases undetected . ..	220	289	179	183	5	34	5	3	409	509
Total ..	234	302	2,775	2,457	921	934	193	198	4,123	3,891

The number of cases reported was less than in the previous year and decrease was under unauthorised fellings though counterbalanced by slight increase under all other heads. The decrease in *Kistna* is due to better supervision by the introduction of the gang system of patrolling and in *Kurnool South* to the imposition of deterrent composition fees in the cases of professional thefts of timber especially in the Sirvel

taluk which would seem to have had its effect in the reduction in the number of offences and also partly due to selling of lines and coupes, to severe notice taken in court of such offence and to the effect of more sufficient patrol by gangs. The increase under injury to forests by fire mostly in *Kurnool West* is due to the inclusion of the large number of fires occurred in areas under special and general protection which were omitted in previous years as their causes were unknown.

11. There were 674 cases pending at the beginning and 556 at the end of the year; of these latter 129 were with the Magistrates. Out of the cases brought to trial during the year, 758 ended in conviction, 88 in acquittal against 722 and 76, respectively, in the previous year; the percentage of failure being 10·40 against 9·52 in the previous year.

Closure of forests to grazing for not reporting or preventing illicit grazing or other offences on a large scale.

12. Nowhere was the necessity found to close the forests on this account, but the privilege of free grazing of 200 head of cattle was suspended for one year to take effect from 1st July 1915 in *Vizagapatam* owing to the indifference of Kondasantha villagers to render timely help in putting out fires that broke in the vicinity of the village. Statistics of offences near villages were taken with a view to enforcing closure next year to the worst offending villages in *Kurnool West.*

13. Two thousand three hundred and thirty cases were compounded for Rs. 24,310 against Rs. 23,971 collected in the previous year on 2,494 cases compounded. Though the number of cases compounded were less than in the previous year, the amount of compounding fees collected was greater due to levy of deterrent fees in grave cases in *Vizagapatam* and in the cases of professional thefts already referred to in *Kurnool South.*

14. No rewards were granted except in *Gōdāvari Lower* where a sum of Rs. 8 was paid to certain Hill Reddis for rendering assistance in the detection of a timber theft. In *Ganjām* rewards in the shape of rice valued at Rs. 165 were granted to Pondakhol Khonds for protecting the forests and ten pairs of bulls at a cost of Rs. 364 were also granted to enable them to cultivate the lands in the valleys and thereby to compensate them for having given up *podu* cultivation. About Rs. 7,000 were distributed by the District Forest Officer or his Assistant as rewards to Koyas, etc., in *Upper Gōdāvari* for having protected the forests from fire. Rs. 1,162 were paid under Board's sanction to the Chentsus of Gudem Range in the shape of clothes, etc., for successful fire protection in *Kurnool East.*

(b) Protection from Fire.

15. The areas attempted and protected are given in Form No. 72. The system of fire protection was the same as usual and the clearing of fire lines by purchasers themselves of the materials thereon was followed in *Kurnool South* and *Kurnool West*, but in the latter district this was not found very suitable as the localities were in most cases away from rail and road communication. In *Ganjām* the Khonds, allowed the usual concessions, assisted in extinguishing fires, fire patrols being employed only where they were not available. The fire season this year was an exceptionally difficult one as there were no rains at all till the middle of May 1915 which was most unusual. The result was not so bad, however, but most of the fires that occurred were due to carelessness on the part of Khonds and others who travel through the forests at night carrying torches, leaving glowing ashes here and there though intentional incendiarism was not anywhere noticed. Protection of sal massif coupes and of areas protected by 60 feet wide fire line was fairly successful. In *Vizagapatam* the protection of Dharakonda reserve was a success but not so in the case of Sinivaram reserve owing to the slackness of the subordinates in fire tracing the lines early in the season and to the indifference in rendering help by Kondasantha villagers already referred to. In *Gōdāvari Upper* steps were taken to reward the Koyas and Reddis by results and the system promises to be a great success and it is hoped to enhance rewards where complete protection has been ensured. Several fire lines were widened and the reserves in the Bhadrāchalam taluk were especially immune from fire due to the readiness with which the hill tribes assisted and also to the favourable season, there being rain at frequent intervals during February to May. On the contrary in Nugur taluk although the hill tribes were just as keen in getting

their lines cleared, the rain held off most unfortunately and the forests consequently were very dry during the whole season, the result being that a very large area was burnt over. This result is also ascribed to the ineffectual fire lines and also to the extensive boundary along the Bastar State being practically useless as a fire line, as it can be widened only after the Bastar boundary is settled. In *Gōdāvari Lower* the services of the hillmen were more frequently utilized in fire protection and payments by results were made. Ninety-nine per cent. of the area escaped fire, good rains in April and May being mainly responsible for this satisfactory results. In *Kistna* out of 60,229 acres attempted, 60,196 acres were protected the success being ascribed to early rains. In *Kurnool East* the area successfully protected was 136,091 acres out of 151,235 acres attempted the number of fires being 22. The worst fire of the year was the one which is said to have entered the Gudem Range from the *West* district at four places which could not be controlled for nearly four days, although the Chentsus of the two gudems of Chinnamantrala and Maddipenta tried to extinguish it. Fire protection was introduced for the first time during the year in Markapur and Cumbum Ranges with satisfactory results. The Chentsus, on the whole, behaved very well during the fire season especially those of Telugurayanicheruvugudem a large portion of which was burnt in the previous year. In *Kurnool South* owing to heavy rains and rain continuing till November and December the fire tracing was continued till 14th February. The lines in Chelama and Gundlakamma Ranges were kept clear of growth throughout the year by the employment of fire patrols. Four hundred square miles were successfully protected out of 522 attempted and the large burnt area is due to the large number of fires occurred in Giddalore and Sirvel Ranges. The chief works of the year besides the usual fire protection operations in *Kurnool West* were the widening of Sim's line to 100 feet and the fire tracing of the central Nallamalais road to a width of 60 feet. Practically the whole of the Nandyal Range was burnt by the fires which occurred late in the year. Most of the fires appear to have been started by Chentsus but two in Gundlabrahmeswaram Range were started by timber dragging Woddars. One Chentsu was actually seen by the Special officer for Chentsus with a torch setting fire to the forest, but could not be caught or identified.

16. Rupees 65,273 were spent on fire protection during the year. The area dealt with was more or less the same as in the previous year, *i.e.*, 4,447 square miles, of these 4,094 square miles were successfully protected against 3,898 square miles during the previous year; the proportion of failure fell to 7·94 from 12·97 in the previous year, the cost per square mile successfully protected rose to Rs. 15–15–1 from Rs. 13–15–9 in the previous year. The increase in cost is due to widening up of the Pondakhol boundary in *Ganjām* and Sim's line in *Kurnool West* and to the large amount of rewards made to Koyas and Reddis in *Gōdāvari Upper*.

17. Appendix A shows the number and origin of fires.

There was a slight fall in the total number of fires with appreciably less damage than in the previous year, the number of fires under causes unknown showing a small increase with a less area burnt.

(*c*) *Protection from Cattle.*

18. Out of 5,118 square miles 1,163 were closed to all animals throughout the year against 952 in the previous year, *Kurnool South* and *Gōdāvari Lower* contributing mostly to the increase. Goats were completely excluded from the forests.

19. Appendix B shows the number of cattle impounded during the year compared with the average of the three years preceding. The average shows a marked decrease in *Kurnool East* and *Kurnool South* though there was a slight increase in *Kurnool West*. But the past years figures show a rise over the averages mostly in the first two districts and in *Kistna*; the increase in *Kurnool South* was due to the closure of forests beyond Sim's line for sylvicultural reasons and in *Kistna* to the large number of cattle driven during floods into the closed areas of reserves.

(*d*) *Protection against injuries from natural causes.*

20. The attack of Jacids on teak leaves remained local in Nugur Range in *Upper Gōdāvari* and the casuarina trees attacked by root fungus in *Gōdāvari Lower* in the Kandikuppa plantation were at once removed and sold.

4. Sylviculture. *

(a) *Natural Reproduction.*

21. Reproduction of predominant species, such as Sal and Sahajo, etc., in *Ganjām* continued to be satisfactory in specially protected areas and was less noticeable elsewhere; of all the important species, such as teak, etc., good in *Gōdāvari Upper* and fairly satisfactory in *Gōdāvari Lower* where Teak, Kondathangedu, Yegisi and Nallamaddi seeded well; in *Vizagapatam* of Nallamaddi and Kondathangedu in Dharakonda and Sinivaram reserves Billu in Sarugudu and Kondathangedu in Karaka reserves abundant; in *Kistna* good in Bezwada Range and unburnt closed areas of Ellore Range; in *Kurnool East* in closed areas and in the freed areas of Gudem Range from bamboo weeds and shrubs, of Billu, some Yegi Tumki and Teak satisfactory; in *Kurnool South* of Yepi in both Nallamalais and Yerramalais good and Billu and teak bore seed; in *Kurnool West* of Yepi in Yerramalais good, excellent in protected forests of Gundlabrahmeswaram Range where Jittegi seeded profusely, but in the Terai and the pentas natural reproduction was generally deficient owing to fires and to trampling and to browzing by cattle. Reproduction from coppice shoots excellent in *Vizagapatam*, in Bezwada and Ellore Ranges of *Kistna* and in *Kurnool West.* Reproduction from root suckers were noticeable in *Gōdāvari Lower*, *Kurnool South* and *Kurnool West.* The reproduction of mangrove forests in *Gōdāvari Lower* and *Kistna* was, on the whole, fair. In *Kurnool West* in Pecheruvu Range hacked sandal trees reproduced themselves by root suckers. In *Gōdāvari Lower* the reproduction of bamboo was abundant.

(b) *Artificial Reproduction.*

22. Form 75 shows the areas under plantation and topes or subject to cultural operations.

Regular plantation.—In *Gōdāvari Lower* and *Kistna* no planting work was done in the casuarina plantations as the reserves are shortly to be abandoned, but the previous year's plants were maintained. In *Kurnool East* no new plantations were started but in the existing five plantations of the Gudem Range casualties were filled up for which purpose small nurseries were maintained near each plantation which were looked after by Chentsu females and boys. In *Kurnool West* the teak plantations at Pecheruvu, Nagaluti, Bairluti, Pasurutla, Rudracode, Sudam, Pangidi and Honkaram were maintained, but extension of the plantations at Honkarm, Bairluti and Pecheruvu was stopped and 20 to 40 acres were planted with pure teak in each of the other five where the growth of teak is generally good and marked near streams and irrigation channels which indicates the necessity for regular and abundant watering during the year of planting. It is observed that the plantations are dependent upon the limited water-supply and cannot therefore be indefinitely extended. The method of liberation of the growing teak from the soft wooded species in these older areas has yet to be decided. At Pecheruvu it was found that sowing sandal in mounds and trenches is wrong as the hosts ought to be mature before the sandal is sown and the cost is out of all proportion to the results achieved. Work was therefore stopped at the end of the year and simple dibbling of sandal seeds round mature hosts combined with much more substantial fencing was substituted. Sandal seedlings are greedily devoured by deer and cattle in the hot weather and really efficient protection against both in the early stages is therefore necessary.

Cultural operations.—*Gōdāvari Upper*, most of the plants in the old plantations of Lakkavaram Range died and in the Marrigudem Range there were casualties of about 2 per cent. among the plants found surviving at the beginning of the year. *Kistna*, Sissoo, Red sanders and teak plants planted in Bendamcherla reserve proved a failure and very poor result attended the sowing of Yegi and teak seeds in the felled areas of Kondapalli and Kondur reserves Babul seed was sown in fenced areas in two different blocks in the Bandar Range and the plants were thriving well. An area of 100 acres in each of the Upputeru and Kanur reserves was sown broadcast with Mada and Thanduga seeds and the plants were doing well in the former, those in the latter withered in the summer.

* List of trees with their scientific names will be found in Appendix C.

(c) Operations for the improvement of growing stock.

23. Improvement felling thinning, coppicing, clear felling, cleaning and weeding and removing dead wood for the improvement of growing stock are detailed under exploitation.

Creeper cutting—was as usual carried by the subordinates in *Ganjām*, *Gōdāvari Lower* and partly in *Gōdāvari Upper* and creepers and thorny bushes were systematically removed in all the coupes prior to felling by contractors in *Kistna* and in *Kurnool West* creeper cutting in coupe 6 of Gundlabrahmeswaram Working Circle was done. In *Gōdāvari Lower* 219 acres were fenced, in *Kistna* four closed reserves were fenced with prickly pear on mounds, in *Kurnool East* bamboos and weeds were thinned out to help the natural growth of important seedlings and over an area of 4 acres in the Badvel reserve extension prickly pear was cut back by the patrolling gang to free the palmyra seedlings, and in *Kurnool West* bunding the head waters of the Gundlakamma river was carried out and more than 5 miles of line were stone walled in the Yerramalais.

(d) Experiments.

(i) ON SPECIES.

24. *Sandal—Ganjām.*—The sandal seedlings planted in Kontaipalli, Gundribadi and Kullada reserves were more or less a failure. *Vizagapatam*—32 plants were counted in the compound at Natavatam of which two were root suckers and two appeared to have come up naturally from seeds of other sandal trees, 162 seedlings were transplanted along the streams in the Dharakonda reserve and 15 plants in the Golgonda Range office compound are thriving well. Of the plants put down in the previous year in the compounds at Narasapatam, Sinivaram, Tadaparti and Kristnadevipeta a few only are surviving. No fresh plants were raised in the compound of the Conservator's office, Waltair, and the previous year's plants are mostly doing well; *Gōdāvari Lower*—the experiments with sandal were continued in many of the reserves of the Peddapur, Gokavaram and Rajahmundry Ranges, but was almost a complete failure; out of the seedlings obtained by sowings in the previous year 130 are surviving in the Dewancheruvu, Mallavaram and Tirumalayapalem reserves and in the Collector's office compound at Cocanada and these are in a very healthy condition. *Kistna*—the sandal plants already planted in different areas of the coupes in Kondapalli reserve of Bezwada Range are thriving well. *Kurnool East*—sandal seeds were sown by Gang subordinates in Chinaganapalli and by fire patrols in selected localities of Markapur and Morricheruvu ranges but the results were not at all encouraging. *Kurnool South*—seedlings were planted in all the ranges but without success.

Mahogany.—Nine mahogany trees in the Natavaram bungalow compound in *Vizagapatam*, are doing well.

Red Sanders, Ganjām.—Red sanders in Napier's Park continue to grow, *Vizagapatam*, out of the 135 plants which survived last year only 35 are now reported to be doing well. *Kurnool East* and *South*—experiments are tried as in the case of sandal with the same result except in Giddalore Range in the latter district where the seedlings were reported to be in good condition.

Log Wood.—The log wood plants in the Kandikuppa plantation in *Gōdāvari Lower* obtained from the sowings made in 1903 are reported to be unhealthy and the trees in the Conservator's compound at Waltair are doing well.

Divi Divi.—Trees in Edugurallapalli, Singaram and Tunikicheruvu bungalow compound in *Gōdāvari Upper* are doing well.

Rubber—(1) *Para : Vizagapatam.*—The few rubber plants in the compound of the rest-house at Sinivaram are thriving well and out of 41 rubber plants surviving at Pandirimamidi at the close of the previous year 8 died, leaving 33 at the close of the year.

(2) *Ceara.*—The condition of ceara rubber trees at Osurabonda in *Ganjām* continue to be satisfactory.

Edible date, Gōdāvari Upper.—The oldest in the Murmur bungalow compound is thriving well. The two date trees in front of Kunavaram rest-house are doing well.

Loquat, *Apple*, *Litchi* and *Mango* plants in *Vizagapatam* are thriving well.

Eucalyptus.—Three plants in the Golgonda Range office compound in *Vizagapatam* are thriving well.

Pinus longifolia.—Out of 470 seedlings surviving in the Sinivaram rest-house compound in *Vizagapatam* at the beginning of the year 56 died, leaving 414 at the close of the year.

(ii) OTHER POINTS.

(*a*) *Lac inoculation*, *Kurnool West.*—The trees of *Butea frondosa*, *Zizyphus Jujuba* and *Schleichera trijuga* were inoculated in Bairluti, Pecheruvu, Pangidi and Gundlabrahmeswaram Ranges and the stick lac for this purpose was obtained from Dhamtari in the Jaipur division in the Central Provinces.

Mulberry.—Cultivation was started at Bairluti and Pecheruvu in *Kurnool West.*

These two above experiments were undertaken principally with the object of providing permanent work for the Chentsus in the shape of lac and silk cultivation.

(*b*) *Test of annual increment.*—In *Gōdāvari Lower* with a view to determine the quantity of annual growth five sample plots, 1 acre each, were taken in the portion worked out in the Marlagudem reserve, Polavaram Range, and they were clear felled and the results recorded.

5. EXPLOITATION.

(*a*) *System of Management.*

25. The total area for which regular working plans were sanctioned was 2,094 square miles and the area dealt with under different sylvicultural systems are detailed below:—

Sylvicultural system.	Area in sq. mls.	Per cent.
(1) Clear felling	148	7·10
(2) Selection felling	438	21·10
(3) Simple coppice felling	35	1·70
(4) Coppice with standard felling	285	13·70
(5) Improvement felling (mostly selection)	107*	5·20
(6) Unworked areas	1,081	51·20
Total ...	2,094	100

(i) MAJOR FOREST PRODUCE.

(1) *Clear or Regeneration Fellings.*

26. Thirty-eight acres in the Kandikuppa plantation were clear felled with a view to disafforestation in *Gōdāvari Lower*, two coupes in Bezwada, two in Ellore and four in Bandar ranges in *Kistna* and the areas to be planted in the regular plantations in *Kurnool West* were treated under this system.

(2) *Selection Fellings.*

27. Twenty sal trees over 7½ feet in girth were felled in *Ganjām* and 1,845 dead and dying sal trees were selected in the same district and felled. The indent system for the disposal of the most valuable species in unreserves in the same district has been in force for seven years and the demand for the timber under this system is increasing by leaps and bounds. The windfallen sal timber from Donibai and Somaralle reserves in *Vizagapatam* was brought down to depôts and sold. Thirty-three acres in three reserves of Bandar range in *Kistna* were treated under this system. A palmyra coupe of 150 matured trees in the Badvi reserve in *Kurnool East* was leased out to contractor during the year and the trees to be felled were selected by the Range officer and marked previously. In *Kurnool South* in Owk palmyra extension selected dead and dying trees were marked and removed under the provisions of the working plan. In *Kurnool West* selection working in improvement fellings was carried out in the Gundlabrahmeswaram working circle and dead timber from the hill forests was removed under this system.

(3) *Regular Thinnings.*

28. One compartment in *Gōdāvari Lower* was thinned and in *Kurnool East* and *Kurnool West* bamboos in the blocks leased out to contractors were removed under this system, but the operation in the former district had to be given up being very expensive.

* Coppice with standard also was worked on 44 square miles.

(4) *Improvement Fellings.*

29. In *Ganjām* five bamboo coupes in Gumsoor and two in Berhampore were treated, the cleaning of stumps being done simultaneously with the extraction leaving four to eight culms per clump. In *Gōdāvari Lower*, besides 38 acres of compartment XI of Kandikuppa plantation which were cleaned, operations were conducted in five reserves where dead wood and bamboos were leased out to contractors with a view to improving the growing stock. The right to fell and remove bamboos from compartments XV to XVII and coupe II of series I and II of Kondur in *Kistna* were leased out to contractors. In *Kurnool East* only dead trees and tamarind trees past the age of bearing fruits in a coupe were sold to a contractor and the Chentsus prepared agricultural implements, spokes and felloes from dead and dying yepi, yegi, and teak trees.

(5) *Coppice with Standards.*

30. Six fuel coupes in *Ganjām*, 418 acres in *Vizagapatam*, five coupes of 606 acres in the Coringa reserve in *Gōdāvari Lower* and 675 acres in Kondapalli reserve in *Kistna* were worked under this system.

(6) *Simple Coppice.*

31. *Gōdāvari Lower.*—Four fuel coupes in the Peddapur, four in the Rajahmundry (including coupes A-5 and B-5 of the Kandikuppa reserve under working plans area 584 acres) and two in the Polavaram ranges were treated under simple coppice.

(7) *Unregulated Fellings.*

32. In *Vizagapatam* permits for timber, fuel, and bamboos were issued for removal from unreserves and felling of yegisi and nallamaddi was allowed on part contract in a portion of the Bointi unreserve. Bamboos were allowed to be removed from located coupes in the Golgonda range. In *Gōdāvari Upper* the right of cutting bamboos from Marrigudem, Pulusumamidi and Lakkavaram ranges was leased out for Rs. 9,050 while removal of timber was not leased out during the year. Unregulated fellings were confined to Rampa in *Gōdāvari Lower* and to certain unreserves under the control of the Forest department and the mada fuel from the Hope Island which forms part of the Coringa extension proposed reserve was as usual removed on permits issued by the Marine department. As usual permits were granted only for palmyra trees and minor produce such as thorns, stones, manure leaves, etc.

(ii) Minor Forest Produce.

(1) *Miscellaneous Produce.*

33. In all districts seigniorage was collected on gravel, earth and other minerals. The usufruct of mango, tamarind, and other fruit trees was sold in auction; the collection of tangedu and other barks, honey, wax, myrabolams, hides, horns, etc., was leased out. The chief deviations were:—In *Ganjām* the emjoyment of the fruits in the majority of cases was left free for the Khonds and mahowa seeds were collected and sold with the balance of previous year's stock. No kamela powder was collected as there was great uncertainty as to prices and difficulty in selling it at all. In *Vizagapatam* seigniorage was collected from purchasers from hillmen at weekly markets except in Palgonda range where all the minor forest produce except the grass in Chinnamangalapuram tope which was leased out to a contractor was removed by purchasers on permits. In *Gōdāvari Lower* permits were as usual issued for all minor produce removed from Rampa as well as from the Agency division of Polavaram and Yellavaram. In *Kurnool East* and *Kurnool West* tamarind, soapnuts, myrabolams, mushti seeds, wax, horns and honey were collected departmentally through the Chentsus and were sold by auction.

(2) *Extraction of Fodder.*

34. In *Gōdāvari Lower* the right to cut and remove fodder and thatch grass in the Coringa reserve was leased out as well as fodder grass from closed areas in *Kistna*. In the three *Kurnools* removal of grass free in head-loads and on payment for cart-loads was continued, but in *Kurnool South* removal in cart-loads of grass was allowed in all the ranges for one and-a-half months except in Sirvel range because of frequent illicit removals of forest produce on a large scale.

(3) *Hay-making.*

35. No operations were undertaken except in *Kurnool South* where fodder grass was collected for feeding Government bulls in the hot weather.

(4) *Grazing.*

36. The permit system was in force in all the districts. The revenue derived was Rs. 1,20,040 against Rs. 1,24,742 in the previous year and the fall is attributable: in *Kistna* to the abolition of parcellaire system, closure of all reserves to goat browsing, closure to all animals of half the forests in Bezwada and Ellore ranges under the provisions of working plan and to some reserves having been disafforested and some placed under Panchayat management; in *Kurnool East* due to less number of cattle that resorted to the pentas of the Rachakonda range on account of water difficulty; in *Kurnool South* to the exclusion of foreign cattle and to grazing being prohibited beyond Sim's line for sylvicultural reasons.

(*b*) *Agency of Exploitation.*

(i) GOVERNMENT.

37. Forms 76 and 77 show separately the different classes of produce collected and Form 78 the stock disposed of and the balance remaining. The total quantity of timber and fuel and the value of bamboos and minor forest produce extracted departmentally were: 14·49, 6·49, and 5·05 per cent. of their respective total outturn through all agencies, and the total value of the disposals was Rs. 1,13,275 against Rs. 1,35,120 in the previous year. The fall was due to leaving the removals to a greater extent to contractors. Transport was as usual. The quantity of timber, fuel and the number of bamboos extracted was 250,028 cubic feet, 868,935 cubic feet and 351,783 against 280,305 cubic feet, 1,459,059 cubic feet and 882,151 respectively in the previous year. The fall is due to substitution of contract for departmental agency. Minor produce collected was 32,103 maunds against 89,509 in the previous year. The fall is due to no kamala powder having been collected in *Ganjām* on account of uncertainty of demand in European markets and in *Kurnool East* to total failure of soapnut crop.

(ii) PURCHASERS.

38. There has been marked increase in the removals by purchasers under all the major heads except timber due to general lack of demand. Driftwood was sold in auction in *Gōdāvari Lower* and *Gōdāvari Upper*.

(iii) & (iv) RIGHT AND PRIVILEGE HOLDERS AND FREE GRANTEES

39. The following statement shows the estimated quantity and value of produce removed under the above heads :—

Agency.	Timber.		Fuel.		Bamboos.	Minor produce.	Grazing.	Total.	Value in the previous year.
	Cubic feet.	Value.	Cubic feet.	Value.	Value.	Value.	Value.	Value.	
		RS.		RS.	RS.	RS.	RS.	RS.	RS.
Right and privilege holders.	184,136	4,717	582,195	5,867	552	23,570	1,079	35,785	36,965
Free grantees	86,853	3,688	..	..	671	2,820	16	7,195	3,075

(*c*) *Outturn and Sources of Forest Produce.*

Agency.	Timber in cubic feet including sandalwood.		Fuel in cubic feet.		Bamboos in value in rupees.		Minor produce (including grass and grazing) gross value in rupees.	
	1913-14.	1914-15.	1913-14.	1914-15.	1913-14.	1914-15.	1913-14.	1914-15.
Government	280,305	250,028	1,459,059	868,935	10,317	6,550	10,750	12,844
Purchasers (including confiscation).	1,813,968	1,288,226	3,877,747	4,459,851	61,539	93,180	243,438	213,695
Right holders	189,507	184,136	792,444	582,195	330	552	24,649	24,649
Free grantees	48,304	86,853	..	..	454	671	78	2,836
Total ..	2,332,084	1,809,243	6,129,250	5,910,981	72,640	1,00,953	2,78,915	2,54,024

40. The variations have been explained where necessary. The rates for grazing fees levied in the several districts are shown in Form No. 74. The number of animals licensed to grazing on permit was 866,732 against 629,218 in the previous year.

CHAPTER III.—FINANCIAL RESULTS.

41. The financial results compared with those of last year and the average of the five preceding years show a net decrease of Rs. 6,155 and increase of Rs. 1,46,252 respectively—

Items.	1914-15	1913-14.	Average of preceding five years.
	RS.	RS.	RS.
Revenue	7,70,393	7,78,973	7,69,647
Expenditure "A. Conservancy and Works" inclusive of "Refunds"	3,33,624	3,73,394	5,24,383
"B. Establishments"	3,97,866	3,60,521	3,52,613
Total expenditure	7,31,490	7,33,915	8,76,996
Net results	+ 38,903	+ 45,058	— 1,07,349

The gross receipts were less than those of the previous year and more than the average by Rs. 8,580 and Rs. 746 respectively.

The expenditure under "A. Conservancy and Works" including refunds is less than that of the previous year and the average by Rs. 39,770 and Rs. 1,90,759 respectively. The net results show an increase of Rs. 38,903 which is due chiefly to the change of system from departmental to contract working.

The above figures do not show the true working of the year and the revenue is solely interest on our capital whilst the expenditure under "A. Conservancy and Works" show large amounts for capital expenditure; and a true balance sheet should merely show the interest on that capital. Working it out in this manner the following results are far more accurate:—

			RS.
Total revenue for the forest year ending with 30th June 1915... ...			7,70,393

Expenditure.

A. "Conservancy and Works"	3,23,310		
Deduct all capital expenditure as per details given below :—	RS.		
A VI-c Rs. 13,939 less 10 per cent. for repairs, Rs. 1,393...	12,546		
A VII-a ...	32,333		
A VII-b ...	13,210		
A VII-c ...	2,132		
A VIII-a ...	7,426		
A VIII e Rs. 41,850 less establishment charges Rs. 3,576...	38,274		
A VIII-f ...	18,074		
A VIII-g Rs. 12,787 less establishment charges Rs. 4,032 ...	8,831		
		1,32,826	
Balance ...		1,90,484	
Add 4 per cent. interest on "Capital" expenditure of Rs. 1,32,826.		5,313	
B. "Establishment" ...		3,97,866	
			5,93,663
Surplus ...			1,76,730

It will be seen herefrom that the true working of the year should show a surplus of Rs. 1,76,730 and not Rs. 38,976 only. The total receipts and expenditure for the year fell by 1·15 and ·41 per cent. respectively.

About 44 per cent. of the expenditure was devoted to the upkeep and improvement of the forests and 56 per cent. to exploitation, etc.

The outstanding revenue at the beginning of the year was Rs. 65,184 and the value of the sales amounted to Rs. 7,83,452. Out of the total of Rs. 8,48,636, Rs. 7,70,813 were collected leaving an outstanding balance of Rs. 77,823 at the close of the year.

RECEIPTS.

(i) *By Departmental Agency.*

Timber.—Rs. 3,287 due to want of demand for Rampa timber in *Gōdāvari Lower*; less timber found on Sim's line and excess collection in the previous year from a contractor in *Kurnool West.*

Fuel.— —Rs. 17,247 due to the inferior quality of fuel extracted in *Gōdāvari Lower*.

Bamboos.— +Rs. 4,180 due to rest having been given to certain coupes in *West.*

Minor produce.— +Rs. 2,869 due to sale of seeds in *Gōdāvari Upper* to Kallikota Estate and to the sale of previous years' stock in Gōdāvari Lower.

(ii) *By Purchasers.*

Timber.— —Rs. 22,664 due to discontinuance of timber contracts in *Gōdāvari Upper*.

Fuel.— +Rs. 46,560 due to sale of Agustinowgam plantation better prices obtained for larger number of coupes in *Ganjām*, to the larger demand by the Public Works Department, in connection with the execution of works in their charge in *Gōdāvari Upper* and to sale of Bendamurlanka plantation in *Gōdāvari Lower*.

Bamboos.+Rs. 20,792 due to better prices obtained in *Ganjām and Gōdāvari Upper* and to larger removals and increased seigniorage rates on bamboos from Rampa in *Gōdāvari Lower*

Grazing fodder grass.— —Rs. 4,70 due to the discontinuance of the issue of permits to Rankuhanumanthapuram reserve as it was under contemplation to disafforest it.

Other produce.— —Rs. 23,434 due to poor harvest in *Gōdāvari Lower*, abolition of commutation fees in *Gōdāvari Upper*, to advance collection in 1913–14 the tangedu bark lease amount of 1914–15 in *Kurnool West* and to the adjustment of Rs. 8,033 under II-(f) in March 1915, final account sent by the Accountant-General.

(iii) *Miscellaneous (including confiscated drift and waifwood).*

Revenue.— —Rs. 3,297 due to the abolition of the leasing system of driftwood groups in *Gōdāvari Lower*.

EXPENDITURE.

A. Conservancy and Works.

The total expenditure was less than that of the previous year by Rs. 41,756 and was chiefly due to leasing of more coupes to contractors, curtailing of expenditure on capital works and to abandonment of cultural operations.

B. Establishment.

The increase of Rs. 37,345 was due to earning by Imperial and Provincial officers increments under the time-scale pay, to the debit of the cost of special establishment for selection of blocks in Rampa country in *Gōdāvari Lower* and for preparing a scheme for the Chentsus in *Kurnool West.*

CHAPTER IV.—ADMINISTRATION.

42. *New District Forest charges.*—There were no changes during the year.

43. *New ranges.*—No new ranges were formed but revision of boundaries of some ranges *of Kurnool West* was made.

44. *Conduct of establishment—Executive staff.*—This was on the whole satisfactory and special mention has to be made of the good work of Rangers N. S. Anantacharlu, K. G. Belliappa, S. Ramaswami Ayyar, Alur Kristna Rao, R. Veeraswami Nayudu, N. L. Narasimham, K. P. Benjamin, H. Rama Rao, Hussain Khan, C. G. Ganapathi, G. J. David and C. S. King and of Deputy Rangers K. Tiruvenkatachari, N. Chakrapani Ayyangar, S. Siviah, T. G. Venunatha Rao, Sankaram and A. Sita Rama Rao. The following were punished for bad work :—two Rangers were reduced, two Deputy Rangers were dismissed and six Deputy Rangers suspended.

Protective staff.—The work and conduct of this branch is found to improve after training given in the Vernacular Training schools; but the list of punishments continues to be long. One Forest Guard and two Watchers were convicted ; one forester, two forest guards, five watchers and two tannahdars, were dismissed; one forester, 21 forest guards, 45 watchers, three tannahdars, two permit gumastahs and one gardener were removed ; nine foresters and two forest guards were reduced ; 24 forest guards, 21 watchers one permit gumastah, one coupe gumastah, four tannahdars and one gardener were suspended and three forest guards and one tannahdar resigned.

Ministerial staff.—Its work and conduct as a whole was satisfactory. Two Range clerks and three Range peons were dismissed, one District Forest officer's clerk and two Range clerks were reduced, one Range clerk was suspended and one Range clerk resigned.

45. *Health of establishment and casualties.*—The health or establishment was bad as usual and notoriously so in *Ganjām* and *Gōdāvari Upper*. The ailments generally were from malaria and spleen and to some extent cholera, small-pox and guinea worm. A dispensary was opened at Gazilabadi, the head-quarters of Pondakhol (Agency) Range in *Ganjām* district. A large number of subordinates went on sick leave and about 20 of the inferior service resigned owing to ill-health. One clerk of the District Forest office *Ganjām*, died of blackwater fever; and one peon of his, one forest guard of *Vizagapatam*, one accountant of *Gōdāvari Upper*, one surveyor and one watcher of *Gōdāvari Lower*, the Head clerk of the District Forest office, one forester and one watcher of *Kistna* two foresters, one forest guard, one Plantation Overseer, one gardener and one Range clerk of *Kurnool West* died of malarial fever and one Range clerk of *Kistna* from cholera.

46. *Relation between Revenue and Forest officials.*—This continued to be cordial but for a small friction in *Kurnool West* between the Ranger and the Tahsildar over the preparation of certain returns in the Taluk office.

47. *Service books.*—These were maintained and verified in all districts.

48. *Tours of Forest Member.*—The Hon'ble Mr. R. C. C. Carr toured in the forests of three *Kurnools* and his successor the Hon'ble Mr. H. F. W. Gillman *in Kurnool East and South.*

Tour of the Conservator.—Mr. A. W. Lushington was in charge of the Circle throughout the year and toured for 213 days visiting all the forests and inspecting all the District Forest offices. He toured also in estate forests of Jeypore, Modgole and Vizianagram to give advice.

Tours of District Forest Officers.—All the District Forest officers but Mr. Murray toured more than the prescribed period and the short tour of Mr. Murray was due to his indifferent health. Mr. Seager of Gōdāvari Lower had to spend over three months in Rampa in connection with the selection and survey of blocks in that area.

Inspection of Range offices.—All the range offices were inspected during the year.

Audit of accounts of District Forest offices.—The accounts of 1914–15 of all the District Forest offices except *Kurnool East* and *West* have been inspected by the Auditors from the Accountant-General's office and reported to be satisfactory; in *Kurnool East* and *West* accounts up to 1913-14 alone were inspected and reported as satisfactory.

Forest College, Dehra Dun.—One probationer for Provincial service, sent to this Circle for practical training, joined the College after undergoing training in *Kurnool East* successfully.

49. *The Madras Forest College.*—As in the previous year six Government students were deputed to the ranger's course commencing from 1st August 1915. One private student attached to this Circle for practical training joined the College after successfully passing through the course in *Kurnool South.* The four that returned this year from the College have all obtained higher standard certificates and of them J. A. Paul D'Cruz won the Brazier Prize. Out of the six students sent for 1914–16 course one was sent back as unfit to follow the course.

Vernacular Training School for Foresters and Forest Guards.—Owing to lack of facilities in former years few Uriya candidates had the advantage of being trained; during the year under report ranger S. Ramaswami Ayyar who was long in *Ganjām* and knows Uriya well was selected as Senior Instructor and given the assistance of A. J. M. Snaize as Junior Instructor. Twenty-eight students of whom ten were Uriya forest guards were sent up, six students had to be withdrawn, one on account of a serious accident and the rest owing to protracted illness; out of the remaining 22 six passed in the first class, seven in the second class, and nine in the third class. Ten out of the 22 successful candidates were the Uriya speaking men from *Ganjām.*

50. *Work and service of Superior officers.*—The following Collectors have commended the work of their District Forest officers to the following effect:—

Ganjām.—Mr. Minchin has shown conspicuous tact and energy in all branches of the work. Mr. G. S. Ladrado's work both as District Forest officer and Extra Assistant Conservator has been excellent and his knowledge of building and road-making has been of the greatest assistance to the District Forest officer.

Gōdāvari Lower.—Mr. Elwin has expressed his continued satisfaction with the work of Mr. Seager and his appreciation of his work in Rampa.

Kurnool.—Mr. Clear and his Assistant Mr. Stracey have done good work; Mr. Thompson has worked hard and conscientiously; Mr. K. G. Belliappa Extra Assistant Conservator on probation, worked hard.

The Conservator has nothing to complain of in the work of any of the Divisional officers; all have worked well, and Mr. Rigold appears to have gained the confidence of the Koyas, who are beginning to turn out some useful work, in the *Upper Gōdāvari.* Mr. Murray, after three years extension, has now retired from *Vizagapatam.*

51. *List of Vernacular names of trees.*—This has been published.

CHAPTER V.—GENERAL.

(*a*) Rules under the Forest Act.

52. *Timber Transit Rules.*—(i) These rules everywhere worked satisfactorily; they were revised for *Ganjām* and found to work well; in *Vizagapatam* they are now better understood and worked: the location of a Tana was shifted to a more advantageous position and cases show a tendency to fall; in *Gōdāvari Lower* the checking offices at Polavaram and Kotilingalu were placed under Deputy Rangers; *in Kistna* the Tana stations and schedules were revised and *in Kurnool West* the rules were extended to Yerramalais ranges which, besides being helpful to ryots in preserving their own timber, are reported to have stopped already stealthy removals under cover of spurious permits granted by village officers and Jaghirdars.

(ii) *Rules under section 26 of the Forest Act.*—The privileges allowed by these rules were generally availed of by the people and no complaints or abuses of any kind were brought to notice except from *Ganjām* where a serious abuse in connection with the valuation of tree growth on darkhast land was detected and the Deputy Ranger concerned was dismissed and from *Kurnool West* where it is said that in the Yerramalai ranges a tendency exists to steadily denude the unreserves for carrying on a regular trade in timber and fuel. Rules for the management of forests and waste lands in Pondakhol mutta of the *Ganjam* Agency were sanctioned by Government and published. The special darkhast rules in force in that district have been cancelled as circumstances have changed.

(iii) *Rules framed for the collection and disposal of drift wood.*—Under the orders of the Board the revision of the rules in the light of the suggestions made by the Honourable the Advocate-General is under correspondence. The leasing system has been abolished and the work is at present being attempted by Departmental Agency with the assistance of village officers.

(iv) *Rules for the guidance of Forest officers in compounding Forest affences.*—The rules worked smoothly and well except for a case in *Ganjām* where a Deputy Ranger was severely beaten in the execution of his duty in this direction and the case is *sub judice*; in *Kurnool West* the time-limit for the payment of compounding fees was in many cases exceeded.

(v) *Rules framed under the Forest Act for private forests*.—These worked smoothly and without complaint. In Malkangiri, part of Jeypore estate, more activity appeared in detecting and prosecuting cases; as the number was unusual a special enquiry by the Deputy Tahsildar of the place was instituted but his report contained misstatement of facts and the Revenue Divisional Officer was of opinion that local enquiry during tours would be more advantageous than judicial enquiry. The forest rules were extended during the year to Kurupam, Peddamerangi and Chinnamerangi estates. Selection of areas for reservation was begun and lists of proposed forest blocks in Peddamerangi and Chinnamerangi were sent to the Zamindars concerned for opinion, in the Kurupam estate survey of one block was completed and proposals made for its reservation. The control and management of Madgole forests was transferred to the Court of Wards during the year and application has been made for the extension of these rules to them.

(*b*) SUPPLY OF FOREST PRODUCE TO MEET THE WANTS OF THE PEOPLE.

53. (i) *Coupe and Depot system.*—The efforts of the department are always being directed towards meeting the local wants of the people. While the cutting, collection and sale of timber fuel and bamboos was being transferred to private individuals every endeavour is being made to encourage those individuals to effect retail sales in the same way as formerly in Government depots. There were no complaints from the public against the contract system or want of produce except from *Kurnool West* where owing to the inexperience of the contractors the demand for agricultural implements was not fully met with. The permit system is not in force except for grazing and removal of minor forest produce. In *Vizagapatam* however permits were issued for all produce on unreserved areas and for bamboos in Dharakonda and Sinivaram reserves. Timber, fuel and bamboos are being generally sold now in coupes standing. In *Gōdāvari Upper*, people obtain ample supplies of fuel and small timber from the unreserves and in Bhadrachellam taluk in particular the inhabitants are allowed to remove classified and unclassified timber from unreserves free of cost for domestic and agricultural purposes; this concession is restricted in the case of Nugur taluk to only unclassified trees. In *Gōdāvari Lower* the working of mangrove areas in the Kandikuppa and the Coringa reserves for supply of fuel to fishermen at fixed rates has been continued. In *Kurnool East* the demand for timber and agricultural implements was generally met from the grazing lines cut in all the ranges, more than 300 sets of spokes and felloes were made out of dead teak and yegi trees by Chentsus in the Gudem Range and sold to contractors at fixed rates, agricultural implements made from dead and dying yepi trees by the Chentsus of Dornal Range were also sold to the public at fixed rates. Fuel which resulted from cutting fire lines was offered for sale but none would purchase as the villagers have their full supply from unreserves. In *Kurnool South*, in order to introduce healthy competition amongst contractors short lengths (2 to 5 miles) of fire lines were sold for the small capitalists to remove the produce thereon and sell to the public. In *Kurnool West* difficulty of transport was experienced and it is under contemplation to purchase some boats to carry forest produce on the Kurnool-Cuddapah canal.

54. *Free removal of grass.*—This was permitted in *Vizagapatam*, *Gōdāvari Lower*, *Kistna*, and thre, *Kurnools*, and was freely availed of by the ryots. No instance of abuse was brought to light.

55. *Hill tribes.*—In *Ganjām* the assistance practically of all the Khonds living adjacent to or inside of reserves was taken in fire and general protection of forests. The Pondakhol Khonds are becoming used to forest departmental works. They are given rewards for successful fire protection; Gumsur Khonds were given for such services concessions such as timber for ploughs, bamboos and thatching grass for repairing their houses, fuel and minor produce for their own use. In *Vizagapatam* care was taken to avoid giving the hillmen cause for complaint against the working

of the forest laws so long as they did not abuse the privileges given to them. The villagers of Kondasantha failed to render assistance in extinguishing forest fires and burnt an area of about 3,000 acres in consequence of which their privilege of grazing 200 head of cattle in the Sinivaram reserve was suspended. In *Godāvari Upper* the Koyas and the Reddis did good work in clearing fire lines and in general protection of forests. Special rewards for successful fire protection in Bhadrachellam and Nugur taluks were distributed in person by the District Forest officer and his Gazetted Assistant. In *Gōdāvari Lower* the Koyas and Reddis of Polavaram and Yellavaram divisions rendered good service in the matter of fire and general protection of forests; their services were also utilized in road and building works for which they were not only liberally rewarded but were allowed several concessions. In *Kurnool East* the Chentsus rendered satisfactory assistance in putting out fires for which the Board was pleased to sanction the free distribution of cloths worth Rs. 1,162. This reward was distributed in proportion to the area of the forest successfully fire protected during the previous fire season and when the value of the cloths supplied exceeded the reward amount the difference was recovered when payment was made for work subsequently done. The Chentsus were employed on works such as collection of minor forest produce, line cutting, fire protection, preparing agricultural implements, cutting back bamboos, fashioning line timber, bunding up vagus, on bridle paths and construction of foot-paths. A start has also been made in one of the worst gudems (Chilakacherla) in the work of splitting bamboos and the results obtained, so far, is sufficient to make one hope that this industry can be gradually extended to several other gudems where the bamboos grow in profusion. There being an extensive demand for bamboos splits it will always be possible to sell the produce at a handsome profit on the spot. In *Kurnool South* the Chentsus at Ahobilam were employed in fire protection works and weeding operations. All the able bodied Chentsus at Ahobilam, Baireni and Mahanandi are employed as fire patrols in the Department. In *Kurnool West* the Chentsus were employed on the teak and sandal plantations in the collection of minor forest produce and in fire protection operations. The teak plantations are likely to come to a close for want of water for irrigation and efforts have been made to train the Chentsus in elementary road work while lac and mulberry cultivation has been started with a view to divert their attention to some useful and permanent occupation. They are generally too lazy to grow field crops which is fortunate from a forest point of view, otherwise a merciless felling of trees for podu cultivation as in the Circars would have denuded the forests. The Chentsus show signs of becoming amenable to discipline and it is hoped that the rigorous development of elementary education of the children will make the rising generation still more tractable. They are by no means inefficient at simple forest work and when put on to contract work they develop surprising energy in order to get away and have their afternoons free. The bunding of jungle streams by rough stone dams has been started, and there is an unlimited supply of this useful though not immediately remunerative work, it is remarkable how quickly and how well they will do this work when they know that a fixed price will be paid for each bund. During the year Government appointed Mr. Hood, I.C.S., to be a special officer for Chentsus for six months from January to July 1915. He visited a good number of the gudems in all the three divisions and is said to have submitted a report on the subject.

56. *Cultivation in reserved forests.*—In *Ganjām* some Khond families of Kumbharibadi (Chinnakimidy Maliahs) have been settled on certain old wet lands in the north-west corner of Pondakhol reserve as sufficient other hands were not available for forest purposes. In *Vizagapatam* the lease of the area in Chintapalli reserve was renewed and on resurvey the area was found to be 57·50 acres and the lessee was charged with the assessment on the excess area of 2·50 acres. In *Kurnool East* an extent of 65·25 acres was granted free of assessment to the Chentsus of Maddipenta, Peddachama, Chintala, Marripalem, Peddamantrala, Chinnamantrala and Murikimallapenta at ·25 per each family besides the area of 111 acres 47 cents which was given to the Chentsus of Garapenta and Chennapalempenta on annual assessment of two annas an acre. The above grants were on condition of helping the Forest department in extinguishing forest fires. In *Kurnool South* four acres of land was assigned to the Police metta talayaries at Payalakanama metta as an exchange for

services rendered to the Police department. In *Kurnool West* the lease of 74 acres in the Gadedamadugu reserve * on the temporary annual lease system was continued. This land will probably be thrown out of reservation and put up to auction.

57. *Mining and prospecting.*—In *Kurnool South* the 30 years license for prospecting for diamonds in Ramavaram reserve granted to Mr. A. Ghose remained unworked during the year; in *Kurnool West* mining leases for 30 years were granted to Messrs. A. Ghose and Charles Jambon for lead ores, to Mr. A. Ghose for diamonds and to Messrs. Beardsell & Co, Madras, for barytes. Two licenses for prospecting for diamonds were also granted to Mr. A. Ghose.

58. *Realization of revenue from the usufruct of toddy-yielding trees on Government waste and poramboke lands.*—The revenue realized was in *Ganjam* (Rs. 1,611), *Vizagapatam* (Rs. 576), *Gōdāvari Lower* (Rs. 4,713), *Kistna* (Rs. 7,729), *Kurnool East* (Rs. 1,212), *Kurnool South* (Rs. 2,335), and *Kurnool West* (Rs. 13,774).

(*c*) Live and Dead Stock.

59. *Live stock*—(*a*) *Elephants.*—All the elephants in the Circle except one in *Ganjām* and one in *Kurnool West* kept good health during the year; the one in *Ganjām* was ordered to be sent to Thippakadu in the Western Circle, for recruiting health in congenial surroundings and in its place a good working elephant was ordered to be supplied from that Circle; the elephant in *Kurnool West* was laid up with an ulcer for some time but recovered. A second elephant "Kapila" was supplied to *Gōdāvari Upper* from the Western Circle.

(*b*) *Bullocks.*—The departmental collection of timber and fuel having been stopped 10 pairs were transferred from *Kurnool South* to *Kurnool West* and these are now employed in carrying provision for subordinates and departmental shops and are hired to forest contractors for carting materials to work spots and to Government officers on tour for the carriage of their saman. They will be employed largely in the construction of new roads and buildings Out of the ten bulls remaining in *Kurnool South* one has to be sold being very old and one out of the 20 supplied to *Kurnool West* was killed by tiger; in its place a new one was purchased for Rs. 50.

Inventory of valuable stock.—The stock registers were maintained and verified in all the districts. The unserviceable monorail in *Gōdāvari Lower* was sold to the Coromandel Company for Rs. 500 during the year.

Rain gauges.—These are in all the districts and the readings were properly recorded, *vide* Appendix D. The rain gauge at Bendamurlanka in *Gōdāvari Lower* got out of order and has been sent for repair. Two new stations in *Kurnool South* at Sandrapodu and Chintalapalli were sanctioned during the year but not yet constructed.

(*d*) Suits.

60. In *Gōdāvari Upper* a late contractor has given notice of suit, in *Gōdāvari Lower* the appeal regarding the Coringa (proposed reserve) extension is still pending before the Privy Council and the suit brought by M. Subba Rao for Rs. 800 against the Forest department has been decided in favour of Government. In *Kurnool West* one G. Seshiah of Atmakur gave notice that if the value of timber purchased by him but not handed over were not refunded to him he would institute a suit, the matter is under correspondence.

61. *Classification of reserves under orders of Government on the Forest Committee's report.*—In *Ganjām* as a result of the classification seven small and useless reserves were proposed for disafforestation. Arrangements are being made to hand over 2 class IV reserves to panchayat management; the people concerned show interest in the affair and the attempt seems to meet with success. In *Gōdāvari Upper* all the reserves have been classified and orders of the Board awaited. No forests in this district need panchyat management. In *Gōdāvari Lower* the proposals sent were returned for revision and have recently been resubmitted. In *Kistna* the classification has been approved by the Board This was the only district in this Circle where panchayat

* Granted to the Christians of Gadethemadugu village.

management has been tried. Of the five reserves Gudemetla, Balasupadu, Gandrayi of Bezwada Range and Chintalapudi and Velagalapalli in Ellore Range handed over to the panchayat the working in the former three was reported to be satisfactory and in the latter two fairly so. In *Kurnool South* the proposals are under consideration of the Collector.

62. *Improvement of water-supply and grazing facilities in Government grazing grounds.*—In *Gōdāvari Lower* several estimates have been sanctioned-works taken on hand to improve water-supply ; and in *Kurnool South* two kuntas in the grazing grounds of Owk Range were repaired during the year. The other reports are silent on this point.

63. *Opening small fuel coupes for rural supply wherever an effective demand exists or can be stimulated into existence.*—In *Gōdāvari Lower* no necessity has arisen as there is enough of waste lands to meet all such demands ; in *Kurnool South* small coupes in grazing areas are being marked for sale, and also standing materials on fire lines to be widened or newly cleared have been sold in small lots in Chelama Giddalur and Sirvel Ranges to meet such demand.

64. *Gang system.*—The system is being introduced everywhere in the Circle and the result of the working will have to be watched. Want of sufficient establishment for successful working is already felt in some districts ; the proposed reorganization of the executive and protective staff will, it is hoped, relieve the strain.

OFFICE OF THE CONSERVATOR OF FORESTS,
NORTHERN CIRCLE,
6*th September* 1915.

A. W. LUSHINGTON,
Conservator of Forests,
Northern Circle.

INDEX.

FOREST ADMINISTRATION REPORT,

MADRAS PRESIDENCY,

CENTRAL CIRCLE, 1914–1915.

Chapter.	Subject.	Paras.
I	Constitution of State forests—	
	1. Alteration in area	1
	2. Forest settlement	2
	3. Demarcation	3
	4. Forest surveys	4 to 6
II	Management of State forests—	
	1. Regulation of management—	
	(*a*) Preparation and control of working-plans	7 & 8
	(*b*) Annual plans of operations	9
	2. Communications and buildings--	10
	(*a*) Roads and bridges	11
	(*b*) Buildings	12
	(*c*) Miscellaneous	13
	3. Protection of forests—	
	(*a*) General protection	14 & 15
	(*b*) Protection from fire	16
	(*c*) Protection from cattle	17
	(*d*) Protection against injuries from natural causes	18
	4. Sylviculture—	
	(*a*) Natural reproduction	19
	(*b*) Artificial reproduction	20
	(*c*) Operations for the improvement of the growing stock ...	21
	(*d*) Experiments on species	22
	5. Exploitation—	
	(*a*) System of management—	
	(i) Major forest produce (Sylvicultural systems) ...	23
	(ii) Minor forest produce	24 to 28
	(*b*) Agency of exploitation	29
	(*c*) Outturn and sources of forest produce	30
	(i) Departmental agency	31
	(ii) By purchasers	32
	(iii) Rights and privileges	33
	(iv) Free grants	34
III	Financial results	35
IV	Administration	36 to 52
V	General	53 to 69
	Appendices A, B and Annual Forms Nos. 65 to 85 (except 68).	

FOREST ADMINISTRATION REPORT OF THE CENTRAL CIRCLE

FOR THE

FOREST YEAR ENDING 30TH JUNE 1915.

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

1. Alteration in Area.

Reserved Forests.—The total area decreased from 5,788 to 5,770 square miles. One hundred and sixty-one acres were added by transfer from reserved lands and there was a reduction of 11,780 acres by disafforestation and by correct computation of area.

Reserved lands.—Two hundred acres consisting of enclosures and extensions to existing reserves were newly constituted reserved lands. One hundred and sixty-one acres were transferred to reserved forests. The area at the close of the year was 73 square miles of which 63 square miles constitute the leased forest in *Bellary.*

2. Forest Settlement.

2. The reservation of the enclosure to the Neraniki reserve in *Bellary* though notified in 1913–14 took effect only from 1st July 1914. One block in *East Cuddapah,* one in *Chingleput,* and three blocks in *Chittoor* aggregating less than one square mile were finally settled during the year. One block in *Anantapur* nearly 10 square miles in extent was finally notified although reservation took effect after the close of the year. Two blocks are pending final disposal by the Forest-Settlement officers and seven blocks have been notified under section 4 and are undergoing settlement.

3. Demarcation.

3. Sixteen miles of boundaries were newly demarcated at a cost of Rs. 830, and 3,739 miles of boundaries already demarcated were kept under repair or rectified at a cost of Rs. 12,373. Two hundred and sixty-seven miles of permanent demarcation with solid stone pillars surrounded by well-packed cairns of stones, and with a lock-spit or a two-feet wide stone alignment between the cairns, were completed.

4. Forest Surveys.

(*a*) *By Survey of India.*

4. The Survey of India did no work in the circle. The index map of the Madras Presidency was published during the year.

(*b*) *By Departmental Surveys.*

5. Alignment of roads, surveying disputed localities and coupes, verification or rectification of boundaries, and the preparation of coupe, working plan and fire maps were carried out by the departmental staff.

(*c*) *Maps.*

6. The reference maps referred to in section 80 of the Forest Code were maintained and posted in all the districts.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

1. Regulation of Management.

(*a*) *Preparation and Control of Working Plans.*

7. *Preparation.*—In *East Cuddapah,* the Seshachellam timber working plan of the Kodur and Rajampet ranges and the Thunukonda fuel working plan of the Kodur Range were sanctioned. In *Nellore,* tentative plans for the forests in the Kavali

FOREST ADMINISTRATION REPORT OF THE SOUTHERN CIRCLE

FOR THE

FOREST YEAR ENDING 30TH JUNE 1915.

CHAPTER I.--CONSTITUTION OF STATE FORESTS.

INTRODUCTORY.

The principal work of the year in this Circle was the classification of Reserves and the preparation of working plans for the important sandal areas.

1. ALTERATION IN AREA.

Reserved forests.—The chief feature of the year was the disafforestation of 1,046 acres (river-side plantations) in *North Vellore* and of 972 acres of casuarina plantations in *South Arcot.* The former are being reafforested. In *Madura* an area of 1,914 acres was deducted on account of the recomputation of areas of the reserves investigated by the Special Deputy Collector.

Reserved lands.—Ariyur Shola Block (1,159 acres) in *Trichinopoly* became reserved land.

The total area of the reserved forests and reserved lands as it stood at the close of the year was 4,426 square miles against 4,430 in the previous year. The transfer of control over the Cauvery and Coleroon padugais to the Public Works Department was ordered at the close of the year.

2. FOREST SETTLEMENT.

2. Settlement is virtually complete except in *North* and *South Salem* in which districts 64 square miles are still under settlement. In *South Salem* it is possible that there may be further additions.

The field work of the Hudaidurgam Block was completed and the whole settlement should be finished shortly.

The settlement of Aranha and Thirtagiri reserves is complete but the result of appeals is awaited. That of Jarugumalai has not yet been taken up.

3. DEMARCATION.

3. Final demarcation was carried out in *North Salem* and *Madura* over a length of 7 and 48 miles, respectively. Rectification of demarcation of reserve boundaries was carried out in *North Vellore*, *South Arcot*, *North Salem* and *Tinnevelly*. Demarcation in *North Salem* has been found to be very incorrect and a Ranger has since been posted on special duty to complete the checking of boundaries. In *South Salem* 239 miles were cleared and lockspitted at a cost of Rs. 989. A sum of Rs. 1,840 was spent on repairing previously existing boundaries. In the whole Circle, 189 miles of line were repaired and 7,189 miles were cleared and maintained. One hundred and eighty-nine miles remained to be demarcated at the close of the year of which 178 miles are in *Madura*. The Special Deputy Collector appointed to re-investigate the settlement of certain reserves on the Palni Hills completed his work on the 6th February 1915. He prepared revised notifications for Poombarai-Vilpatty Valley and Kudriyar reserves and verified the correctness of the existing notification in respect of Manjampatty reserve.

and Nellore Ranges were sanctioned; a tentative scheme for the *Anogeissus latifolia* area in the Marlapoody reserve received the approval of the Conservator; and a scheme for the management of the Ayyavaripalle reserve was under preparation. For the Atmakur working circle a working scheme was prepared; but no final orders were passed pending the Conservator's inspection. In *Chittoor*, the Tirupati Range working plan, so far as it affects the Mamandur forests, was revised and the revision was sanctioned by the Board.

8. *Control.*—In *West Cuddapah*, the working plans for the Lankamalais were cancelled as it was impossible to carry them out. Generally speaking in all districts in which there are working plans deviations therefrom occur on account of want of funds or of establishment to carry out the full programme of roads and buildings; from failure to sell coupes owing to want of demand; from the necessity of opening closed areas on account of local scarcity; and from many other reasons too numerous to detail. There is work in the circle to give full employment to two or three working plan sections for many years in recasting existing plans and in preparing new ones. Major charges like *Bellary* and *Guntūr* have no working plans in actual operation and in other districts most of the existing plans are sketchy and out of date.

(b) Annual Plans of Operations.

9. The sanctioned plans of operations in several districts were upset by uncertainty of the future management of forests classed as IV and V. In *Bellary*, a number of works were not undertaken owing to restriction in the programme due to classification of forests, amalgamation of the Alur and Adoni Ranges, and the cancellation of working plans in four ranges. In *Chingleput*, there were a few deviations caused by the sale of arrear coupes. In *Chittoor*, the deviations were due to curtailment of expenditure on cultural operations, to postponement of final demarcation pending classification of forests, and to reconsideration of the scheme to build a range office and quarters at Tirupati. In *East Cuddapah*, the timber improvement fellings in the Lankamalais were not started owing to the probability of the market being glutted; certain communications not provided for in the plan of operations were carried out in order to give access to coupes under working or for other urgent reasons; and other works of the kind which had been provided for were postponed. Owing to shortage of money or to reconsideration of the project some building works such as the rest-house at Tankudu; forest lines at Tankudu, Pichureddibhavi, Joti and Yelkundi were not carried out and other smaller works such as the construction of forest lines at Rollabodu and of sheds at Bollapalli, Kodur and Upparapalli were substituted. In *West Cuddapah*, there were deviations from the plan of operations in the working of most of the timber and fuel working circles for the reasons already given. Owing partly to want of funds, partly to the arrears of work from the previous year, and partly to reconsideration of the works themselves the following works were not carried out:—the conversion and extension of the Faridpenta bridle-path, construction of inspection shed at Nadimpalli, construction of a rest-house, range office and quarters at Sanipaya and of a tannah shed and forest lines at Rayachoti and Mudampad. In *Anantapur and Guntūr*, the plan of operations was generally adhered to. In *Nellore*, the scheme of experimental fellings in the Veligondas was abandoned, and the construction of certain buildings, viz., an inspection bungalow at Beripet, and forest lines at Udayagiri, Kanigiri, Amancherla and Sydapuram was postponed or cancelled.

2. Communications and Buildings.

10. The following figures compare the outlay on communications and buildings:—

	1913-14.	1914-15.
	RS.	RS.
Roads and bridges	11,764	15,670
Buildings	37,122	33,510
Other works	3,947	2,675

The increase in expenditure on roads occurred chiefly in *East Cuddapah*, *Nellore* and *Chingleput*. There was a decrease in expenditure on buildings in *Bellary* and *Chittoor* owing to restriction of programme.

(a) *Roads and Bridges.*

11. In *East Cuddapah*, the construction of a road from Erraneetibandalu to Papanasam, of bridle-paths from Mogilipenta to Papanasam and Gadithalapenta to Umithala and of a cart-track from Sathyalathippa to Chelamabhavi were completed; while the construction of bridle-paths from Thummalabylu to Kodur, from Kondur to Harlabailu and from Rollabodu to Joti; the conversion of Vathalur-Thummalabylu cart-track into a road, and the conversion of the Kanamalopalli-Turkepalle and Kangamadugu-Pullagurapenta bridle-paths into cart-tracks and the construction of a road from Kodivengammabhavi to Kodur were in progress. In *Anantapur*, the Bukkapatnam-Siddarampuram and Bukkapatnam-Amagonda-palayam roads were partly constructed. In *Nellore*, progress was made in constructing a bridle-path along the foot of the Veligondas, and from Udayagiri to Bandaganipalli, and in the Boggutla Valley. In *Chittoor*, the Mamandur chatram and Nellipatla-Rangampat roads were partly constructed.

Tramways.—In the Sriharikota Range of the *Nellore* district only 609 tons of fuel were carried by tramway compared with 7,602 tons in the previous year owing to the failure of the felling contractor to carry out his agreement. In the Coast Range 6,308 tons of fuel were carried. The tram-lines and trucks remain the property of Government but are no longer used for departmental operations. The use of them is given to the fuel contractors on terms provided in the felling contracts.

(b) *Buildings.*

12. In *Bellary*, the subordinates' quarters at Fort-wall and the inspection bungalow at Gudekota were completed during the year. In *Anantapur*, combined range office and quarters at Madakasīra and an inspection bungalow at Kalasamud-ram were constructed. In *Guntūr*, the Venkatayapalem bungalow was condemned before the work was completed owing to the bad choice of site. It will be dismantled and the material used for reconstruction in a better situation. In *West Cuddapah*, the Veeraballe rest-house and subordinates' quarters at High school were completed. In *East Cuddapah*, the construction of range office at Rajampet, of subordinates' quarters at Gollupalle, Umethala and Mogilipenta and of rest-houses at Aremanipenta and Kondur was completed during the year. In *Nellore*, the range office at Dachur was built. In *Chingleput*, the rest-house at Allikuli was partly built.

(c) *Miscellaneous.*

13. A number of petty works were carried out in the circle of which the most important were the digging of wells and the improvement of water sources in the grazing blocks, on which Rs. 2,400 were spent. Various other works are mentioned in detail under head 4 (*c*).

3. Protection of forests.

(a) *General Protection.*

14. The following statement gives the number and classification of forest offences compared with the previous year :—

Class.	Injury to forests by fire.		Unauthorised felling or appropriation of wood and minor forest produce.		Grazing without permission or in tracts in which grazing is prohibited.		Other offences.		Total.	
	1913-14	1914-15.	1913-14.	1914-15.	1913-14.	1914-15.	1913-14.	1914-15.	1913-14.	1914-15.
1. Cases taken into Court.	10	2	1,228	1,251	867	897	111	121	2,216	2,271
2. Cases compounded.	4	3	4,313	4,440	2,993	3,335	353	209	7,663	7,987
3. Cases undetected.	197	123	188	266	247	297	1	2	633	688
Total ..	211	128	5,729	5,957	4,107	4,529	465	332	10,512	10,946

The increase in the total number of forest offences dealt with during the year is almost entirely due to illicit grazing of which more cases were reported in all districts except *Bellary* and *Nellore*. The figures in the above statement do not however accurately represent the facts, especially with regard to undetected cases. Thousands of offences the perpetrators of which were not detected are not reported at all, and in respect of injury to forests by fire the 123 undetected cases given in the above statement chiefly relate to the *Anantapur* and *Chittoor* districts which alone report 112. In other districts the administration reports have no reference to undetected cases unless the fire has been the subject of special investigation, which is often not the case.

The percentage of acquittal of forest cases taken to court was 9·66 compared to 8·98 in the previous year.

Seven thousand two hundred and eight cases were compounded for Rs. 76,379 compared to 6,876 cases compounded for Rs. 67,758 in 1913–14.

The punishments awarded by Magistrates are said to have been generally adequate.

Rewards were given sparingly in most districts for the successful detection of forest offences and amounted to Rs. 1,685.

15. *The Rules for the Guidance of Forest Officers in compounding Forest Offences* were observed throughout the circle.

(b) Protection from fire.

16. The area under fire protection during the year was 1,835 square miles compared to 2,091 square miles in the previous year, and the area reported to be burnt was 121 square miles compared to 150 square miles in 1913-14. A considerable portion of this area is however nearly immune to fire and the protection afforded is little more than the clearance of boundary lines and the attention given by the ordinary staff.

In the *Bellary* district the Sandur forests and some reserves adjoining them, some sandal and palmyra topes and the fuel coupes after felling were systematically fire-protected. These areas were protected with success. Elsewhere there were extensive fires especially in the partially protected Harpanahalli forests and in Adoni Range while in the unprotected forests about 18,000 acres were burnt. The cost of fire protection in the Sandur leased forests continues to be high; means of reducing it without loss of efficiency are under consideration. In *Anantapur*, 420,314 acres are reported to be under protection but in by far the greater portion of this area there is no more protection than is given by the presence of a small protective staff. The District Administration Report gives very little information on the subject and although the number of fires reported is the largest in the circle the percentage of successful protection is given as 97·62 per cent. In *Guntūr*, there were as usual practically no fires owing to the absence of grass in the dry over-grazed forests of this district. During the current year the employment of the special fire protection establishment has been stopped. In *West Cuddapah*, the experiment was tried of abandoning some of the inter-divisional and external fire lines in place of greater activity by patrolling parties. Whether owing to this departure or to other causes the results of the year's work were unsatisfactory and the proportion of failure rose from 6 to 17 per cent. and was probably higher if the burnt area could have been correctly measured. In *East Cuddapah*, the same experiment was conducted with the same results, the burnt area being 119 square miles compared to 43 square miles in the previous year, although as in *Cuddapah West* division the staff worked very hard to control the fires. The whole question of fire protection is now under consideration by the Board. In the *Cuddapah* district fire protection is an extremely difficult matter. The heat in April and May is almost unbearable, there is little water and less shade in the hill forests, the main hill blocks are very difficult of access and there are few interior communications by which the scene of a fire can be reached before the fire has got beyond control. Fires are chiefly caused by incendiarism for the benefit of the early grass and one of the most urgent reforms is the closure of the valuable red-sanders forests in the Cuddapah hills to any form of grazing. In the *Nellore* district, the only forests which suffer severely from fire are those of the

Veligonda Hills. During the year under report the systematic fire protection introduced by the District Forest Officer was generally successful and the fires which occurred were due to burning material being borne by the wind across the zamindari and Government fire-traced boundaries. In *Chingleput*, the only forests under systematic fire protection are those of Nagalapuram and Kambakkam, in the former of which 352 acres were burnt. The cost of protection of these two forests amounts to the high figure of Rs. 24 per square mile and the matter is under enquiry. In *Chittoor*, 212 square miles out of 214 square miles under special protection were free from fire. There were one or two cases of deliberate incendiarism and refusal by the villagers of assistance. They have been dealt with by closure of the burnt area to grazing.

The origin of fires is given in Appendix A.

(c) Protection from cattle.

17. The area closed and opened to grazing is given in statement No. 73. It will be noted that goats are being excluded from the forests of all districts in accordance with the arrangement which gave the goat-owners three years grace in which to reduce or dispose of their flocks. The total number of cattle grazed in the forests of the circle, amounted to 1,593,128; a small increase of 3,600 head over the number grazed in the previous year; but the revenue increased from Rs. 2,70,931 to Rs. 2,99,154 owing to the increased kancha rents in *Nellore* and to enhanced fees of goats throughout the circle. The general incidence of grazing still remains far too high to permit improvement of the forests in many parts of the circle. In *Guntūr* the present incidence is 1 cow unit per 1·80 acres throughout the forests of the district; and in *Chingleput* to 1 cow unit to 1·20 acres. The classification of forests having been completed grazing schemes for the various districts of the circle are now under consideration. That for *Guntūr* was submitted in March 1915 and was sanctioned by Government after the close of the year.

The nuisance of the semi-wild cattle on the Sriharikota island was mitigated by the capture of 179 animals.

An analysis of the cattle impounded during the year with the average of three years is given in Appendix B.

(d) Protection against injuries from natural causes.

18. *Lantana* was eradicated to a small extent at Ramandrug and at Horsleykonda and prickly-pear was removed from parts of some reserves in *Bellary*. In *West Cuddapah*, the *Pterocarpus santalinus*, *Anogeissus latifolia*, *Strychnos Nux-vomica and Eugenia Jambolana* were defoliated by some unidentified caterpillar pest.

4. Sylviculture.

(a) Natural Reproduction.

19. There is little of interest in the circle to report. Seedling reproduction has three great enemies in drought, fire, and cattle and a strong flush of seedlings on the ground during the monsoon inspires no great hopes in the District Forest Officer except where the reserve happens to be under strict protection. The sandalwood has been long established in *Cuddapah*, *Chittoor* and *Bellary* and recently so in *Anantapur*. It is rapidly spreading in the last three districts as the trees mature and birds carry the seeds. Coppice reproduction in the felled coupes is reported to have been satisfactory in all districts except *Guntūr* where the difficulty of protecting the regrowth from cattle is particularly great, and where the crop is usually so poor that reliable contractors cannot be persuaded to undertake the work of felling.

(b) Artificial Reproduction.

20. *Regular plantations.*—Further planting has been abandoned throughout the circle and the casuarina plantations on the coast are being gradually sold. Some small expenditure was incurred in watering existing plantations in *Chingleput* and Rs. 4,188 were spent in *Nellore* for the same purpose.

Cultural operations.—In *Bellary*, departmental cultural operations were confined to an expenditure of Rs. 260 on mound sowing in some reserves of the Adōni range and to the sowing of sandal in the Kotekal reserve. Afforestation by the lease of

land to ryots for cultivation combined with sowing of the seed of forest trees was carried out in Halaharivi and Badanahal reserves with moderate success. In *Anantapur*, cultural operations for the spread of sandal were carried out in Amagondapalayam, Kadiri and Penukonda reserves at a cost of Rs. 271 ; the results in two out of the three operations were satisfactory. In *Chittoor*, the seed of *Red Sanders* was dibbled on mounds in the Chittoor reserve, but the result was a failure. The dibbling of sandal seed in the reserves of the Palmaner range continued to give fair results.

(*c*) *Operations for the improvement of the growing stock.*

21. *Timber improvement fellings.*—In *Cuddapah East*, 800 acres of forest were felled over. *Coppice felling* continued to be carried out in all districts of the circle for the supply of firewood. Provided the coupes can be subsequently protected from cattle there is no better preliminary method of restoration than that of cutting back the degraded scrub jungle which forms so large a proportion of the forest area in the central circle. *Fencing* of felled coupes was carried out in all districts by dead thorn hedges, by alœ hedges planted on mounds, or by prickly-pear. The first of these methods is by far the cheapest and easiest ; but the fences only last for a short time and are often impossible to maintain for want of material. The question of protection of coupes in a forest which is open to grazing is one of the most difficult with which the department has to deal in this circle. *Stone-walling* which is by far the most effective method of protection from trespass was carried out in *Bellary*, *Anantapur* and in *Cuddapah* at a cost of Rs. 8,500. The cost is however often prohibitive and it is not a method which can be widely used. It had to be stopped in the first two of the above districts owing to the increasing cost. *Bunding of streams* was carried out on a small scale in *Chittoor*, *Cuddapah* and *Bellary*. Experience in *Cuddapah* shows that there is no use in throwing bunds across streams on the steeper hill slopes. The water percolates through the rocky bed and no deposit is formed.

(*d*) *Experiments on species.*

22. There is little of interest to report. The *Mahogany* in the *Cuddapah* district continues to do fairly well and *Eucalyptus globulus* in the Palmaner range of *Chittoor* district is thriving while it is dying out in *Cuddapah*. *Dalbergia sissoo* cuttings in the Moka plantation of *Bellary* established themselves successfully. Ten plants of *Acacia auriculiformis* still survive in *West Cuddapah*.

5. Exploitation.

(*a*) *System of management.*

(*i*) Major Forest Produce.

23. The total area under working plans was 1,820 square miles and the areas treated under different sylvicultural systems are shown below :—

	Square miles.	Percentage of total area under each sylvicultural system.
1. Method of clear felling by compartment	7	·39
2. Simple coppice	8	·44
3. Coppice with standards	743	40·82
4. Method of improvement fellings	217	11·92
5. Area closed to felling or worked under no definite sylvicultural system	845	46·43
Total ...	1,820	100·00

(*ii*) Minor Forest Produce.

(1) *Miscellaneous Produce.*

24. The right to collect minor produce was leased out to contractors as usual in all the districts, except in the Sriharikota Range of *Nellore* district where for special reasons the produce was collected and sold departmentally. The increase in price of leaf-manure to Rs. 2 per cart load in *West Cuddapah* and *Nellore* had a deterrent effect on the demand.

Permits continued to be issued for stone, earth and road materials.

(2) *Extraction of fodder.*

25. The Military Grass Farm Department held leases of areas in *Bellary*, *Anantapur* and *East Cuddapah* and removed hay at Rs. 2 per ton. Mr. Howes, an independent contractor who took on lease the closed compartments of the Bellary Range and certain compartments of the Donimala block, removed 240 tons of hay.

(3) *Free Removal of Grass.*

26. Free removal of grass was allowed in all the districts except *Guntūr* and *Chingleput* where there was either no grass to remove or little demand for the concession. The concession of free grass removal, which, under reasonable precautions, does more good than harm to the forests, was freely taken advantage of in the other districts. The concession was temporarily withdrawn in certain cases in the *Anantapur* district as the villagers adjoining the forests had failed to help in putting out fires.

(4) *Hay-making.*

27. The departmental manufacture of hay was abandoned. $15\frac{7}{8}$ tons of the previous year's stock in *Guntūr* was sold for Rs. 156.

(5) *Grazing.*

28. The revenue realized during the year was Rs. 2,99,154 against Rs. 2,70,931 in the previous year. There was an increase in all the districts except *East Cuddapah* and *Chingleput* and the reasons thereof have been given in Chapter III. The decrease in revenue in the *Chingleput* district is due to the handing over of 5 reserves to Panchayat management, to disafforestation of two reserves, and to the closure of certain other reserves. The decrease in revenue in *East Cuddapah* is small and calls for no remarks.

(*b*) *Agency of Exploitation.*

29. Departmental exploitation of forests has almost ceased; but small quantities of timber and fuel, obtained in clearing kancha, coupe and boundary lines, and in opening out roads, were disposed of departmentally. Small quantities of timber were also extracted for departmental buildings.

(*c*) *Outturn and Sources of Forest Produce.*

30. The following statement gives the total outturn compared with the previous year :—

Agency of exploitation.	Timber in cubic feet including sandal-wood.		Fuel in cubic feet.		Bamboos in number.		Minor produce (including grass and grazing) gross value in rupees.	
	1913-14.	1914-15.	1913-14.	1914-15.	1913-14.	1914-15.	1913-14.	1914-15.
By Government agency ..	20,567	11,071	100,896	36,063	9,120	12,200	18,941	14,701
By purchasers (including confiscation)	1,585,381	1,065,163	5,688,506	6,584,517	1,766,649	1,833,386	6,92,586	6,31,218
By right-holders	..	..	..	..	..	..	150	151
By free grantees	84,180	38,543	..	..	14,775	17,127	2,457	1,320
Total ..	1,690,128	1,114,777	5,789,402	6,620,580	1,790,544	1,862,713	7,14,134	6,47,390

(i) Departmental Agency.

31. Compared with the previous year the outturn by departmental agency under *timber* and *fuel* decreased owing to stoppage of departmental operations and that under *bamboos* showed an increase as a greater number were exploited for departmental purposes in *Bellary* and *East Cuddapah*. There was a fall under *Minor Produce* owing to the failure to sell the Nux-vomica crop in *Nellore*.

(ii) By Purchasers.

32. (*a*) *Timber.*—The decrease is due to fewer applications for forest land on darkhast.

(*b*) *Fuel* and (*c*) *Bamboos.*—The increase is due to the further extension of the contract system.

Minor produce.—The decrease is due to a smaller collection of Tangedu bark in *Bellary* and to the very marked fall in the demand for mica in *Nellore*, owing to the war.

(iii) Rights and Privileges.

33. Details of the concession of free removal of grass, have been given in paragraph 26 *supra*. In *East Cuddapah*, 807 cattle of the villages of Settigunta and its hamlets were allowed to graze without fee according to the terms of forest settlement. In *Nellore*, the Madigas and Muthrachās on the Udayagiri-Durgam hills were evicted from the top of the hill for abuse of their privileges; but on their representation to Government they were allowed in consideration of their long residence in the locality, to resettle at the foot of the Durgam. The assistance that they need to establish themselves in the new settlement is being given them by the Collector.

(iv) Free grants.

34. The statement below shows the details of free grants made during the year. They were made chiefly for rebuilding houses destroyed by fire. In *Nellore*, palmyra trees and leaves were granted for the construction of huts for the Kavali Erukala settlement, and free grazing was allowed in the tope reserves for 4,489 cow units. In *Chingleput*, the removal of vellal grass was permitted free of cost in certain cases and the free grazing of 81 cows and bullocks was allowed in Guindy Park.

—	Timber.		Fuel.		Bamboos.		Grass and grazing	Other minor produce.	Total. value.
	C. ft.	Value.	C. ft.	Value.	Number.	Value.	Value.	Value.	
		RS.				RS.	RS.	RS.	RS.
Right-holders	..	..	..	..	..	..	151	..	151
Free grantees	38,543	3,509	..	..	17,127	246	1,122	198	5,075
Total .	38,543	3,509	..	..	17,127	246	1,273	198	5,226

CHAPTER III.—FINANCIAL RESULTS.

35. The financial position of the year is compared with that of the previous year and the average of the preceding five years in the following abstract:—

—	1914-15.	1913-14.	Average of preceding five years.
	RS.	RS.	RS.
Revenue	10,90,120	11,26,791	11,51,062
Expenditure.			
A.—Conservancy and works including refunds.	2,51,895	2,79,854	4,46,585
B.—Establishments	3,99,058	3,73,845	3,47,133
Total of A and B ..	6,50,953	6,53,699	7,93,718
Net results ..	+ 4,39,167	+ 4,73,092	+ 3,57,344

The net results show a surplus of Rs. 4,39,167 against one of Rs. 4,73,092 in the previous year and of Rs. 3,57,344, the quinquennial average. Of the receipts 30 per cent. were realised from major produce, 28 per cent. from grass and grazing,

31 per cent. from minor produce, and the balance 11 per cent. from miscellaneous items. The total expenditure of the year was divided among heads A, B and C of section 215 of the Forest Code in the following proportion: —A 1 per cent., B 59 per cent. and C 40 per cent. The estimated value of produce at sale depots at the end of the year was Rs. 720 against Rs. 3,044 at its commencement. The revenue outstanding was Rs. 2,67,517-3-6 of which Rs. 12,080-15-5 fell due within the year.

The important variations between the actuals of the year and those of the previous year are explained below:—

RECEIPTS.

(i) *By Departmental Agency.*

	RS.	
Timber	— 4,145	Due to the stoppage of departmental exploitation of *timber*, *fuel* and *hay*.
Fuel	— 6,068	
Bamboos	— 187	
Sandalwood	— 732	
Minor forest produce	— 4,080	

(ii) *By purchasers.*

	RS.
Timber	— 10,632
Fuel	+ 31,035
Bamboos	— 872
Grazing	+ 28,223
Minor forest produce	— 96,967

The decrease under *timber* is due to a falling off in the sale of trees on darkhast lands in *Guntūr* and *Bellary*. The very large decrease in the revenue from sale of *minor produce* is due to the suspension or part collection of the Tangedu bark lease amounts in *Bellary* and *Anantapur*, and to the general fall in revenue from mica leases in *Nellore*; the war being the direct cause in both cases. On the other hand there was a rise in the revenue under *fuel* due to an increased number of coupes sold under the contract system; and a rise in the *grazing* revenue due to the enhanced fees for goat browsing in *Bellary*, to the extension of the Kancha system in *Nellore*, and to the increased number of licenses issued for grazing in the upland taluks in Guntūr.

(iii) *Miscellaneous (including confiscated drift and waif-wood).*

+ Rs. 27,754—the sale of forest land in *Nellore* chiefly contributed to the increase.

EXPENDITURE.

A.—Conservancy and Works.

— Rs. 27,734. The main reasons for the decrease were:—

Stoppage of departmental fuel operations, the discontinuance of hay-making, the short programme of construction of buildings in *Bellary* and *Chittoor* and the curtailment of cultural operations in *Bellary*, *Guntūr* and *Nellore*.

The decrease was partly counterbalanced by the payment of Rs. 6,220 under orders of Government as supplemental compensation to the owners of the Guntūr fuel depot site.

B.—Establishment.

+ Rs. 25,213. The payment of leave allowance to a Conservator, to a Deputy Conservator and to an Extra Deputy Conservator; the posting of a senior Deputy Conservator to *Bellary*; the appointment of an Assistant Conservator, an Extra Assistant Conservator and several additional temporary foresters and guards to districts in the circle, the re-organization of the mica establishment in *Nellore*; the increased touring of officers, and the increased cost of uniforms, all contributed to the increased expenditure under *B.—Establishment.*

CHAPTER IV.—ADMINISTRATION.

36. The charge of the circle was held by Mr. H. B. Bryant until 25th January 1915 and by Mr. S. Cox for the rest of the year.

37. *District and Range charges.*—Proposals for the trifurcation of the *Cuddapah* district were submitted to the Board at the end of the year. There was an addition to the number of ranges in *East Cuddapah* and two of the existing ranges in *Guntūr* and in *Chittoor* were amalgamated. Proposals to transfer to *Anantapur* the small portion of Iswaramala reserve which lies in the *Chittoor* district were pending with the Board.

38. *Work of superior officers—Extracts of Collectors' remarks:—Cuddapah (By Mr. A. R. Bānerji). West.*—"Mr. T. A. Whitehead was in charge of both divisions of the district until 17th July 1914 when he was relieved of the West division by Mr. A. Raju Nayakar whose work has been characterised by zeal. I find he is a keen forest officer and full of energy. The supervision exercised by him over his subordinates and his inspections have been on the whole thorough and efficient." *East.*—"Mr. Whitehead's work has been characterised by keenness and insight and he has been ably assisted by Mr. Abdul Qadir." *Nellore (By Mr. R. Ramachandra Rao).*—"Mr. Arbuthnot was District Forest Officer throughout the year. He is very sympathetic in his attitude towards the public and apprehending rightly that their co-operation is essential for efficiency of forest administration, has frequently forestalled me in meeting the requirements of the people. He does not spare himself in the discharge of work. But expecting the same of his subordinates he is apt to drive his subordinates too much and expect more of them than is possible. If he remains in the district a few years, I am sure, the grazing policy of the district will become practically fixed in a manner satisfactory both to the State and to the people. Mr. S. V. Devadasan, Extra Assistant Conservator, has been busy touring the district and studying its peculiarities under Mr. Arbuthnot's directions. He is a capable and intelligent officer." *Chittoor (By Mr. H. L. Braidwood).*—"Mr. Jackson's work as District Forest Officer was in every respect satisfactory. Mr. D. L. Sathe, Assistant Conservator, is getting a good grasp of forest work and should turn out an efficient Forest Officer."

The Collectors of *Bellary* and *Guntūr* offer no remarks and those of *Anantapur* and *Chingleput* state that as they arrived late in the district they are unable to report on the work of their District Forest Officers.

Conservator's remarks.—I endorse the remarks of the Collectors given above. Mr. Panchapakesa Ayyar in *Guntūr* and Mr. Thornton in *Bellary* have worked hard to bring their divisions into better order and Mr. Gajaraja Mudaliyar in charge of *Chingleput* is a keen and active officer.

39. *Executive establishment.*—The work of rangers is reported to have been satisfactory in one district, moderate in three districts and unsatisfactory in the rest. One Ranger was dismissed but reinstated to a lower grade on appeal to the Board of Revenue after the close of the year. Another dismissed Ranger reinstated on appeal remained on duty for only six months after his return when he was again suspended and charged with criminal breach of trust. He has since been sentenced to six months' rigorous imprisonment and Rs. 200 fine. There were also cases of temporary reduction in grade and suspension pending investigation of charges. In the higher grades of Rangers there are a number of excellent hard working officers of good character; but the lower grades are unfortunately too full of officers with no interest in their profession and with no intention of doing more work than serves to keep them in the service.

The Deputy Ranger grades are largely filled by men under probation and there have been a good many removals of men who have proved unfit for a forest life.

40. *Protective establishment.*—The conduct of the staff continued to be unsatisfactory. One Forester resigned his appointment, five were reverted to Forest Guards or removed from service, five were suspended and four were reduced. Among the guards there were seven resignations, 38 suspensions, six reductions, 58 removals from service, 15 dismissals and three convictions. The present unsatisfactory state

of the protective establishment is partly due to the inferiority of many of the rangers under whom the staff has to work. Under good rangers the protective staff usually does good work.

41. *Ministerial establishment.*—The work is reported to be generally satisfactory. Mr. Gundu Rao, the efficient Manager of the Circle office, was promoted to be Forest Assistant to the Board of Revenue.

42. *Health of establishment and casualties.*—The health of establishment is reported to have been rather better than usual; but there is always a great deal of fever among the staff in certain parts of the circle. One Forester and two Forest Guards died of malarial fever, two Forest Guards died of cholera and one Forest Guard and one watcher were murdered by a gang of sandalwood thieves in the Badvel taluk of *Cuddapah.*

43. *Relations between Revenue and Forest Officers*—continued as usual to be very cordial.

44. *Service books*—maintained and verified in all the districts.

45. *Tours of the Forest Member.*—The Hon'ble Mr. H. F. W. Gillman, I.C.S., inspected the red-sanders forests of Rajampet and Kodur ranges in *East Cuddapah* and the Mamandur and Horsleykonda forests in *Chittoor.*

46. *Conservator's inspection.*—All the District Forest offices in the circle were inspected during the year and found to be in good order. The Conservator inspected some of the forests in *Bellary*, *Guntūr*, *East Cuddapah*, *Chingleput* and *Chittoor.* The total number of days spent in camp was 160.

47. *Touring of District Forest Officers.*—More than the prescribed minimum of touring was done by all District Forest Officers.

48. *Inspection of Range offices.*—All the Range offices were inspected by the District Forest Officers or their Assistants except one in each of the *West Cuddapah*, *East Cuddapah* and *Nellore* divisions. The omission in the second was due to the range having been formed only in November 1914 and in the other two instances they were inspected immediately after the close of the year.

49. *Audit of accounts of District Forest offices.*—The special staff of the Accountant-General's office audited the accounts of all the District Forest offices except those of *Guntūr* and *Chingleput* and the results were as usual satisfactory.

50. *Imperial Forest College, Dehra Dun.*—One Provincial Service probationer, posted for preliminary training to this circle, was deputed to the College and is undergoing training.

51. *The Madras Forest College, Coimbatore.*—One Ranger and four Deputy Rangers were deputed for training during the year. Three Deputy Rangers returned with Higher Standard certificates.

52. *Vernacular Training School.*—The year's session was held in *West Cuddapah.* Twenty-four Guards and three Foresters underwent training and the course had not closed at the end of the year. The school is reported to have done good work under the management of the instructor M.R.Ry. V. N. Seshagiri Rao and his assistant Mr. T. T. Ansep.

CHAPTER V.—GENERAL.

53. *Realizations of revenue from the usufruct of toddy-yielding trees on Government wastes and poramboke lands.*—Rupees 51,407 were realised against Rs. 54,624 in the previous year.

54. *Measures adopted to encourage the growth of manure leaf-yielding plants.*—No measures were adopted.

Rules under the Forest Act.

55. *Timber Transit Rules.*—The existing rules are stated to have worked satisfactorily in *Guntūr* and *Chittoor.* The revised rules for *West* and *East Cuddapah* are reported to work effectively; many illicit removals were brought to light and smuggling was reduced.

56. *Rules under section* 26 *of the Forest Act.*—The privileges allowed under these rules were generally taken advantage of and no complaints nor abuses were brought to light.

57. *Inventory of valuable stock.*—The stock registers are reported to have been maintained and verified in all the districts.

58. *Rain gauges*—were maintained in all the districts except *Chingleput.*

59. *Cultivation in reserved forests with a view to afforestation.*—No new reserves were leased out in *Bellary*. The plants of 1908 in Banavasi reserve have established themselves and are 8 to 16 feet in height and the girth of the margosa saplings is 16 inches. The plants of 1912–13 in Budanahal reserve have also established themselves and are 10 to 12 feet in height. An extent of 300 acres in Halaharivi reserve was sown with margosa and babul in 1913–14 and a fair crop has established itself on the whole area. The sowing was a failure over an area of 60 acres which has however been resown in 1915–16. In *Anantapur*, the cultivation under certain restrictions of a few acres of land by ghat-talayaries continued. *In Nellore*, *West Cuddapah* and *Chittoor* certain plots were assigned to the police ghat-talayaries for the same purpose.

60. *Suits.*—The Moka land suit which was pending at the close of the previous year was disposed of in favour of Government. The appeal preferred by the shrotriemdar of Putlampalli in *West Cuddapah* in 1912–13 was decided in favour of the shrotriemdar during the year under report.

61. *Live-stock.*—Four buffaloes were maintained in *Chittoor* district of which two are reported to be very old and past work.

62. *Mining.*—In *Bellary*, the mining lease for 30 years over 1,609 acres in Harpanahalli taluk granted to Mr. A. Ghouse of Dhone in the previous year, continued to be in force. The application of Mr. A. Ghouse for a lease in the Copper mountains of Bellary Range and that of Mr. A. D. Sanders of Ramandrug General Sandur Mining Company for prospecting manganese ore in Tonasigeri reserve were pending disposal. The prospecting license granted to Messrs. A. M. Jeevanjee & Co., Bombay, for red oxide in Joga and Hospet reserves, was cancelled as they failed to commence operations. The other applications referred to in the previous year's report were either withdrawn, refused or lodged. No fresh licenses were granted. In *Anantapur*, no new licenses for prospecting gold were given and in *Guntūr* the diamond mining operations were in suspension.

Nellore Mica and Mica Mines.

Applications.—Fifty-one applications were received during the year and these added to the 58 pending from previous year raised the total number to 109. Of these 76 were disposed of during the year leaving a balance of 33 at its close.

Mines in Government lands (State mines).—There were 53 mining leases in force at the beginning of the year of which four were relinquished and five cancelled during the year. Nine new leases were sanctioned and two time-expired leases were renewed; thus leaving 53 pending at the close of the year, including the nine cancelled mines of M.R.Ry. A. Subba Nayudu, referred to in the previous year's report.

Prospecting licenses.—Twenty-seven licenses were in force during the year for varying periods.

Patta land mines (shared mines).—The year opened with 28 agreements in force of which three were relinquished or cancelled during the year. To these two licenses granted during the year were added thus making the number of agreements in force at the close of the year 27. Of these, the Shah and Pallimitta mines of Messrs. Badsha Sahib & Co., the Lakshminarayana of Mr. Lakshminarasa Reddi, the Pattabhirama mines of Y. Audemmah, the Bhuputri mine of Mr. G. Subrahmanyam and the Kubera patta land mine of Chennur gave a steady outturn. The "E and F mine" of Talupur and Palamani mine at Chaganam under the management of the Official Receiver are also reported to have been effectively worked during the year.

Mines in permanently-settled estates (private mines).—There were 21 mines in the zamindari and shrotriem lands yielding 61,348 lbs. of mica valued at Rs. 25,911. The mines of Kalichedu, in the hands of an Austrian firm, stopped work after war was declared. The mine at Oorupalli and the Chukka mine at Jogipalli shrotriem produced the best results.

Illicit mining.—There were no cases of illicit mining during the year.

Outturn and royalty.—The marginally given figures show the rapid fall in yield of mica during the year, a result due to the general trade depression caused by the war and to the fact that many of the mines were in the hands of enemy aliens.

Years.		LB.	OZ.	RS.
1913–14	...	826,512	2	27,637
1914–15	...	331,568	3	14,847

Besides mica, 4,833 lbs. of Samarskite was obtained which realised Rs. 45 in royalty fees. The China Clay and Garnet mines were abandoned.

Financial results—The revenue realized was Rs. 19,122 against Rs. 32,940 in the previous year and the expenditure Rs. 6,617 against Rs. 4,953. The increased expenditure is due to the revision of mica establishment.

Labour.—1,488 persons were employed in mining compared to 2,974 in the previous year. Wages were the same as in the previous year. Children were not allowed to work below ground but were employed in dressing mica. The electric installation at Kalichedu and Sankara mines had not started work yet.

Accidents.—None.

Ventilation and lighting in tunnels.—No change.

Inspection by superior officers.—The Inspector of Mines visited 43, Collector 3, the District Forest officer 1, the Revenue Divisional officers 5 and the District Medical and Sanitary Officer 4 mines. As a result of the latter's inspections steps were taken for the improvement of sanitation and supply of drinking water.

Prospects of industry.—As in the previous year only three of the nine cancelled mines belonging to A. Subba Nayudu were worked during the year. Of late some new applications for mining leases have been received and there is some hope of a revival of the industry.

Recommendations of the Forest Committee.

(a) *Classification of forests.*

63. The classification of the forests in *Guntūr*, *East Cuddapah*, *Nellore*, *Chingleput* and *Chittoor* was sanctioned during the year. Proposals for classification in *Bellary* and *Anantapur* were sanctioned after the close of the year, and those for *West Cuddapah* were submitted and are awaiting the orders of the Board.

(b) *Constitution of forest panchayats.*

64. During the year seven panchayats in *Anantapur*, two in *Nellore*, eight in *Chingleput* and one in *West Cuddapah* were in charge of forests.

The Collectors' reports on the year's management show that in *Anantapur* the management was fairly good in three cases and bad in four. In *Chingleput* the management was fairly good in five cases, very bad in one case, and very good in two cases. The Collector reports that difficulty is experienced in extending the panchayat system owing to the unwillingness of the villagers to undertake the management on terms which provide for forest conservancy. In *Nellore* the management by the Kavali panchayat is reported to have been fairly satisfactory, and that by the Karedu villagers to be very satisfactory.

During the year arrangements were made to establish 21 panchayats in *Chittoor*, six in *West Cuddapah*, three in *Anantapur*, and two in *Chingleput*. The agreements only came into operation at the close of the year.

Mr. E. A. Davis, Personal Assistant to the Forest Commissioner, was on special duty in connection with panchayats during the latter part of the year and toured in *Cuddapah*, *Chittoor* and *Chingleput* districts of the circle.

(c) *Opening of fuel coupes for rural supply.*

65. Under the contract system coupes are being opened wherever there is a local demand sufficient to induce a contractor to undertake the felling. Every encouragement is given to contractors and the prices paid by them to the department are often little more than nominal. The result has been a wide extension of supply centres and the forest has benefitted by being cut back and properly coppiced.

(d) *The patrol system.*

66. This system cannot be widely introduced until the protective establishment is reorganized. In the meantime it is being experimented with on a small scale in several districts and experience is being gained. In *Cuddapah*, it is found that if patrols be substituted for the local and resident protective staff, the result is a failure. The patrols are only useful if they work in connection with a resident staff which can supply them with sufficient local information to act on. Otherwise the patrol's movements are too well observed for their inspection to be effective. In *Chittoor*, it was found that a patrol was only useful provided it was under the control of an active and intelligent Deputy Ranger, and at present it is not easy to provide such leaders.

(e) *Inducement to villagers to aid in forest conservancy.*

67. Nothing new of any practical importance has been done in the circle during the year. The whole matter has however been the subject of constant discussion and the results will appear when the district grazing schemes are formulated. In *Bellary* and *Nellore* certain reserves were closed to grazing in 1914–15 on account of wilful incendiarism; and in a few cases in *Bellary*, *Cuddapah* and *Chittoor* the grazing fees have been raised for 1915–16 or the burnt areas have been ordered to be closed to grazing for the same reason.

(f) *Improvement of water-supply and grazing facilities in Government grazing grounds (Board's Proceedings, Forest No.* 125, *dated* 29*th June* 1914).

68. In *Anantapur*, *East Cuddapah*, *Nellore* and *Chittoor*, the existing wells and ponds were repaired or deepened. A step-well was constructed in *Anantapur*. In *Guntūr* the graziers were allowed to repair the existing kuntas for the benefit of their cattle. The subject is not reported on in *West Cuddapah* and nothing was done in this direction in *Bellary* and *Chingleput*. More progress may be expected now that the reserves have been definitely classified.

(g) *Sale of plantations.*

69. The casuarina plantations on the coast are being gradually disposed of by sale. About 500 acres were sold during the year under report.

MADRAS
16*th September* 1915.

S. COX,
Ag. Conservator of Forests, Central Circle.

INDEX.

FOREST ADMINISTRATION REPORT,

MADRAS PRESIDENCY,

SOUTHERN CIRCLE, 1914–1915.

Chapter.	Subject.	Paras.
I	Constitution of State forests—	
	1. Alteration in area	1
	2. Forest settlement	2
	3. Demarcation	3
	4. Forest surveys	4 to 6
II	Management of State forests—	
	1. Regulation of management—	
	(a) Preparation and control of regular working-plans ...	7 & 8
	(b) Annual plan of operations	9
	2. Communications and buildings—	
	(a) Roads and bridges	10
	(b) Buildings	11
	(c) Miscellaneous works	12
	3. Protection of forests—	
	(a) General protection	13 to 15
	(b) Protection from fire	16 to 18
	(c) Protection from cattle	19
	(d) Protection against injuries from natural causes ...	20
	4 Sylviculture—	
	(a) Natural reproduction	21
	(b) Artificial reproduction	22 & 23
	(c) Operations for improvement of growing stock ...	24
	(d) Experiments	25
	5. Exploitation—	
	(a) System of management—	
	(i) Major forest produce	26 to 29
	(ii) Minor forest produce	30 to 33
	(b) Agency of exploitation—	
	(i) Departmental agency	34
	(ii) Purchasers	35
	(iii) Rights and privileges	36
	(iv) Free grants	37
	(c) Outturn and sources of forest produce	38
III	Financial results	39
IV	Administration	40 to 54
V	General	55 to 76
	Appendices A and B and Forms Nos. 65 to 85 except 68 and 84.	

FOREST ADMINISTRATION REPORT OF THE SOUTHERN CIRCLE

FOR THE

FOREST YEAR ENDING 30TH JUNE 1915.

CHAPTER I.--CONSTITUTION OF STATE FORESTS.

INTRODUCTORY.

The principal work of the year in this Circle was the classification of Reserves and the preparation of working plans for the important sandal areas.

1. ALTERATION IN AREA.

Reserved forests.—The chief feature of the year was the disafforestation of 1,046 acres (river-side plantations) in *North Vellore* and of 972 acres of casuarina plantations in *South Arcot*. The former are being reafforested. In *Madura* an area of 1,914 acres was deducted on account of the recomputation of areas of the reserves investigated by the Special Deputy Collector.

Reserved lands.—Ariyur Shola Block (1,159 acres) in *Trichinopoly* became reserved land.

The total area of the reserved forests and reserved lands as it stood at the close of the year was 4,426 square miles against 4,430 in the previous year. The transfer of control over the Cauvery and Coleroon padugais to the Public Works Department was ordered at the close of the year.

2. FOREST SETTLEMENT.

2. Settlement is virtually complete except in *North* and *South Salem* in which districts 64 square miles are still under settlement. In *South Salem* it is possible that there may be further additions.

The field work of the Hudaidurgam Block was completed and the whole settlement should be finished shortly.

The settlement of Aranha and Thirtagiri reserves is complete but the result of appeals is awaited. That of Jarugumalai has not yet been taken up.

3. DEMARCATION.

3. Final demarcation was carried out in *North Salem* and *Madura* over a length of 7 and 48 miles, respectively. Rectification of demarcation of reserve boundaries was carried out in *North Vellore*, *South Arcot*, *North Salem* and *Tinnevelly*. Demarcation in *North Salem* has been found to be very incorrect and a Ranger has since been posted on special duty to complete the checking of boundaries. In *South Salem* 239 miles were cleared and lockspitted at a cost of Rs. 989. A sum of Rs. 1,840 was spent on repairing previously existing boundaries. In the whole Circle, 189 miles of line were repaired and 7,189 miles were cleared and maintained. One hundred and eighty-nine miles remained to be demarcated at the close of the year of which 178 miles are in *Madura*. The Special Deputy Collector appointed to re-investigate the settlement of certain reserves on the Palni Hills completed his work on the 6th February 1915. He prepared revised notifications for Poombarai-Vilpatty Valley and Kudriyar reserves and verified the correctness of the existing notification in respect of Manjampatty reserve.

4. Forest Surveys.

(a) By the Survey of India Party.

4. During the year, five reserved forests (42,000 acres) in *South Vellore* were surveyed on the 2 inches = 1 mile scale by the Survey of India Party.

(b) By Departmental Survey.

5. All coupes were surveyed by the ordinary staff, except in *North Salem* where a surveyor was employed in Salem West Range, and in *Madura* where similar work was done by a supervisor.

A variety of survey work such as the determining of village boundaries in panchayat areas, verification of reserve boundaries and the surveying and aligning of roads aud bridle-paths was done by departmental surveyors.

The Kodaikānal pine plantations were surveyed by two supervisors.

(c) Maps.

6. *Reference maps referred to in section 89 of the Forsst Code.*—These are reported to have been maintained in all districts.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

1. Regulation of Management.

(a) Preparation and Control of Regular Working-plans.

7. *Preparation.*—Considerable progress has been made with the preparation of working-plans during the year, but the classification of reserves, and developments which have taken place have necessitated the revision of many existing plans.

In the *South Salem Division* the Board has sanctioned the sandal working-plan of the Chitteris and this has been supplemented by a plan dealing with the extraction of bamboos, the regulation of grazing and concessions to the Malayalees. This plan was submitted for sanction after the close of the year. The total area covered by these two plans is 70 square miles.

In *South Vellore*, the Working-Plans Officer prepared an elaborate plan to cover the sandal working of the whole of the Javadies (176 square miles). This plan entailed the complete enumeration of all sandal trees in this valuable forest. It was sanctioned after the close of the forest year.

In *North Salem.*—The reconnaissance report for the sandal forest of the division has been approved and the detailed enumeration of the stock in Denkanikotta Range is well advanced. The revision of the Dharmapuri working-plan has also been taken up.

In *Madura.*—The reconnaissance report for the fuel areas of the district has been approved. The stock maps are approaching completion and complete details are nearly ready. This work is being done by the Special Working-Plans Officer.

A working-plan was prepared by the District Forest Officer for the Kodaikānal pine plantations but was not sanctioned.

In *Trichinopoly.*—The sandal areas of the Kollimalais and Pachamalais have been mapped and statistics are being collected.

The work still to be done in preparing and revising working-plans in this Circle is enormous and the Conservator's tours in *North* and *South Salem* and *South Vellore* have shown that very few of the working-plans which are in existence are suitable at the present time.

In *Tinnevelly.*—On the whole the old plans have worked well for a long series of years but here revision and extension of the areas dealt with is required.

8. *Control.*—Very little control has been kept over working-plans and the control registers are not well maintained.

The following deviations are some of the more pronounced :—

North Vellore.—Out of 48 fuel coupes prescribed for exploitation during the year only 17 were leased out. Out of the 296 arrear coupes, only 15 were actually worked. This failure in working is said to be due to difficulty in transport and the inaccessibility of several coupes.

South Vellore.—Timber coupes were not worked on account of the unsuitability of the prescriptions of working-plans. Forty-eight current fuel coupes and 345 arrear coupes were not worked during the year owing to their inaccessibility. After completion of classification the revision of these working-plans will be taken up.

South Arcot.—Working of several coupes in Kallakurichi Range fell into arrears for want of demand.

North Salem.—In Maharajagadai, Neralakotta and Lokur Working Circles, working has been in arrears since the Madras Railway substituted coal for fuel. Faulty demarcation, delay in marking standards in areas overgrown with prickly pear and thorny creepers, and unwieldy coupes have been the causes of failure in carrying out the prescriptions of the Vanavasi and the two Shevaroys Working-plans.

South Salem.—Out of 31 working circles, work was carried out in only 23. Of these only ten coupes were completely felled. The failure here is due to the same causes as in North Salem.

Trichinopoly.—There were heavy arrears in Kulittalai and Vaiyampatti ranges at the end of the year. These ranges are accessible to good markets in Trichinopoly and Madura, but the demand has undoubtedly been affected by the war. In the Namakkal and Musiri ranges, work is very heavily in arrears and it is doubtful if these somewhat degraded areas, which are far from a market, are really capable of being worked.

Madura.—The war has affected the demand in this District also and even in the Kanavoipatti and Palamedu ranges there are considerable arrears. Arrear coupes to the extent of 1,579 acres were worked during the year.

Tinnevelly.—In this District, there are no substantial deviations but the Kopparai and Padarmalai working plans have run out, the former after a 10 years period of working and the latter after 20 years' work.

(b) *Annual Plan of Operations.*

9. Besides the deviations mentioned in paragraph 8 *supra*, the other important deviations were.—*North Vellore.*—Construction of a road from the 7th mile of Vellore-Kaniambady road to Palamady reserve coupe was not undertaken and repairs to certain roads were not carried out on account of estimates having been received late from the Rangers. *South Vellore.*—Patrakad rest-house could not be completed on account of the illness of men engaged in the construction. *South Arcot.*—Buildings proposed to be constructed in Cuddalore and Kallakurichi ranges were not undertaken. *North Salem.*—The construction of the rest-house and out-houses at Anaibiddahalla was not taken up for want of a suitable contractor. *South Salem.*—The construction of three roads and one building was postponed as more important and urgent works had to be undertaken. *Madura.*—The construction of certain roads and buildings was purposely postponed as it was considered advisable to restrict expenditure as far as possible owing to the unsatisfactory financial position of this District.

2. Communications and Buildings.

(a) *Roads and Bridges.*

10. The total expenditure on new works amounted to Rs. 6,233 and on repairs to Rs. 23,680 as compared with Rs. 16,663 and Rs. 24,457, respectively in the previous year. In *North Vellore*, the construction of the Odugathur-Melarasampet road commenced in 1913-14 was completed during the year at a cost of Rs. 1,123. In *South Vellore*, 2 miles of road from Komatiyur to Patrakad were approaching completion. Thirty-five miles of existing roads were maintained at a cost of Rs. 3,518. In South Arcot, the bridle-paths in Siruvady and Muttakadu reserved forests were extended by 2½ miles and a cart-track to a distance of six furlongs opened out to connect the Thurinjikadu rest-house with Villipuram Local Fund Road. In *North Salem*, Billigundlu-Hogainkal road was completed and Bommiyampatti-Lokur road and the approach road to Sholapadi rest-house were commenced. One hundred and twenty four miles of existing roads were repaired In *South Salem*, roads from Panamarathupatti to Malayalapatti, Biyarnatham to Pulikuttiramankoil, Chinnakuppam to Karkanpatti and Namagiripet to Varagur were constructed. In *Trichinopoly*, 124

miles of existing roads were repaired at a cost of Rs. 3,316, of which Rs. 768 spent on the maintenance of three Local Fund roads was recoverable from the Local Board and a sum of Rs. 524 was actually recovered during the year. In *Madura*, 145 miles of existing roads were maintained at a cost of Rs. 8,258. In addition to these 16 Local Fund roads were maintained from funds provided by the District and Taluk Boards and the Kodaikānal Municipality. In *Tinnevelly*, 93 miles of existing roads were maintained at a cost of Rs. 2,353.

(*b*) *Buildings.*

11. During the year, the total expenditure on new buildings and on repairs amounted to Rs. 32,477 and Rs. 11,100, respectively, against Rs. 42,852 and Rs. 13,591 in the previous year. The important new works were:—*North Vellore.*—The completion of the Range office and subordinates' quarters at Odugathur and construction of compound walls to the Satghur and Arungaldrug bungalows. *South Vellore.*—Completion of subordinates quarters at Pudupalayam, part construction of Patrakad rest-house and out-houses. *South Arcot.*—Completion of the rest-house and out-houses at Thurinjikadu and part construction of rest-house in Pavunjipattu reserve. *North Salem.*—Completion of Ranger's quarters at Mecheri and Range office and Ranger's quarters at Anchetti. The rest-house at Hogainkal was completed and out-houses were added to the Sholapadi rest-house. Range quarters at Kadiampatti and a Range office at Mecheri were also taken up but not completed. *South Salem.*—The rest-house at Pappireddipatti and outhouses at Kombutukki and Kambalai were completed. Range offices at Harur and Attur, the rest-house at Cauveri peak, out-houses at Pappireddipatti and subordinates' quarters at Achankuttaipatti were taken up but not completed. *Trichinopoly.*—Construction of Range office at Turaiyur and subordinates' quarters and out-houses and stables at Sobanapuram and improvement to Sobanapuram bungalow. *Madura.*—The completion of a kitchen and stables to the rest-house at Munur and part construction of Vannathiparai rest-house and subordinates' lines at Guruvanuthu. *Tinnevelly.*—Completion of subordinates' quarters at Mundanthurai and Khansapuram, part construction of quarters at Puliangudi, Kodamadi and Pachiammankoil. Buildings for a Forest College camp at Mundanthurai were begun in July and stopped in August.

(*c*) *Miscellaneous Works.*

12. The construction of compound walls at Anchetti and Kadiampatti in *North Salem* was carried out. An elephant trench round Vannathiparai rest-house in *Madura* was dug. *In Tinnevelly*, Rs. 437 was spent on trial borings for the construction of wells for subordinates' quarters.

Thirteen new wells were sunk and 20 old wells were deepened or repaired in the several districts of the Circle during the year.

3 PROTECTION OF FORESTS.

(*a*) *General Protection.*

13. The following statement gives the number of offences of the year compared with the previous year:—

Class.	Injury to "Forests" by fire.		Unauthorised felling or appropriation of wood and minor forest produce.		Grazing without permission or in the tracts in which grazing is prohibited.		Other offences.		Total cases.	
	1913-14.	1914-15.	1913-14.	914-15.	1913-14.	1914-15	1913-14.	1914-15.	1913-14.	1914-15.
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
Cases taken to Court ..	10	6	1,868	1,936	682	778	159	130	2,719	2,850
Cases compounded ..	5	..	7,197	7,919	2,747	2,597	358	513	10,307	11,029
Cases undetected	308	243	189	236	9	16	11	37	517	532
Total ..	323	249	9,254	10,091	3,438	3,391	528	680	13,543	14,411

The total number of offences reported during the year exceeded that of the previous year by 868. The increase was chiefly under the head of unauthorised felling. The increase in cases in *South Vellore* is peculiarly noticeable. The total number in reserved forests rose from 1,036 to 1,592. The increase is chiefly under the head of unauthorised felling but there is also a considerable increase in grazing cases. The increase is in all Ranges. *South Arcot* has still an unenviable superiority as regards the number of cases reported there being no less than 1,969 in the reserves alone which is 106 more than in last year.

Both these districts will probably be considerably affected, when classification has been completed and the reserves are put under panchayat management.

In *Trichinopoly*, there is a very marked increase of cases of unauthorised felling in the unreserves.

Cases brought to trial.

Year.	Convictions.	Acquittals.	Percentage of failure.
	No.	No.	
1913–14	2,690	166	5·81
1914–15	2,712	158	5·50

Cases compounded.

Year.	Number of cases.	Amount.
		RS.
1913–14	9,391	86,658
1914–15	9,657	84,782

In fixing the amount of compensation attention was generally paid to the orders contained in Government Order No. 1990, dated 13th June 1910.

14. Punishments inflicted by magistrates are reported to be satisfactory except in *North Vellore* and *Madura*. The number of cases in this Circle is far larger than in any other and a very noticeable fact is the very large percentage which are compounded. This, coupled with the fact that only one sandal case and three fire cases have been thought worthy of mention, seems to show that the bulk of cases are of a comparatively trivial character. On the other hand, it is to be noted that forest cases seem to be provocative of graver crime, for in *Tinnevelly* one guard, in *North Vellore* one guard and *South Vellore* one guard and one watcher were murdered. In addition there was one case in *North Salem* and two cases in *Trichinopoly* in which forest subordinates were assaulted. In all these cases, which ended in conviction, the subordinates were merely doing their duty. The placing of isolated reserves under panchayats will undoubtedly result in reduction of offences, but at the same time it is essential that establishments must be increased to protect the forests left in the hands of the department so that the *prevention* of petty cases may be secured.

15. Rewards to the value of Rs. 55 were given to subordinates in *South Vellore* for the detection of three cases. Rewards were sanctioned in two cases in *North Salem.*

(b) *Protection from Fire.*

16. *Special Protection.*—There was no change in the system of protection during the year. The area attempted to be protected was 1,023 square miles against 1,212 square miles in the previous year. There has been no actual reduction of the area attempted but 113 square miles in *North Vellore*, 55 square miles in *Madura* and 20 square miles in *South Vellore* were wrongly classed hitherto under Special instead of General protection.

In *South Arcot*, there is practically no fire, a fact which may be attributed to the very heavy grazing incidence and the same refers to *Trichinopoly*. *South Vellore* also shows wonderful results 99·7 per cent. being successfully protected. Here as in *North Vellore*, and *South Salem* the success is undoubtedly due to the co-operation of the Malayalees. The two districts which show up worst in the matter of protection are *Tinnevelly* and *North Salem*. The former is especially bad and this is probably due to the very thick lemon grass which prevails.

The area burnt during the year was 18·31 square miles against 24·56 square miles in the previous year. The percentage of area successfully protected during the year was 98·2 per cent. against 97·97 per cent. in the previous year. The cost per square mile of successfully protected area rose from Rs. 16–4–1 to Rs. 18–15–4.

17. *General protection* was attempted over 3,137 square miles against 2,962 square miles in the previous year. The increase has been explained above. The percentage of failure fell from 1·04 per cent. to 0·4 per cent. during the year.

18. The number and origin of fires are given in Appendix A. There were 258 fires burning 20,715 acres against 320 fires burning 35,478 acres in the previous year. This is a very good result seeing that there are 2,662,781 acres of forest in the circle. In the one case of malicious firing detected in *North Salem*, the accused was convicted and sentenced to three weeks' rigorous imprisonment. The one case of wanton incendiarism in *Trichinopoly* was also successfully prosecuted.

In *Tinnevelly*, out of 15 cases of intentional firing only one case was detected and it was in connection with this case that the forest guard was murdered. The old system of closing a block immediately it was fired is out of vogue and the long delay which is caused by fruitless enquiry followed by a nominal penalty seems to be of little use.

(*c*) *Protection from cattle.*

19. Eighty-three per cent. of the total area of reserved forest was opened to grazing of cattle but closed against goats. Goats were excluded from all the reserved forests from the commencement of the year.

The large area open to grazing is undoubtedly the cause of much of the offence which takes place and the forests have very little chance of improvement.

The incidence of grazing in the several districts of the circle is given below :—

District.	Number of cattle in cow units.	Area in acres.	Number of acres per cow unit.
North Vellore	1,26,687	2,79,680	2·21
South Do.	1,65,310	4,23,040	2·56
South Arcot	1,57,322	1,93,280	1·23
North Salem	1,34,084	4,71,040	3·51
South Salem	1,09,342	3,41,120	3·12
Trichinopoly	1,47,295	2,04,800	1·39
Madura	86,416	3,10,320	4·17
Tinnevelly	35,193	1,30,560	3·71
Total ..	961,649	2,403,840	2·5

These figures are sufficiently startling seeing that extensive areas are included over which no grazing is possible.

The forests of *South Arcot* and *Trichinopoly* and those of *North* and *South Vellore*, where the grazing incidence is heaviest, will undoubtedly cease to exist if this policy is persisted in.

(*d*) *Protection against injuries from natural causes.*

20. (1) *Prickly-pear.*—The prevalance of prickly-pear in this Circle is most noticeable. It covers large areas in *North Vellore*, *South Arcot*, *North* and *South Salem*, *Trichinopoly* and *Madura* and yet no steps are being taken for its eradication nor is it thought worthy of mention in the District reports.

(2) *Lantana.*—Lantana is very abundant in *North Salem* but no steps for eradication have been taken.

In *Tinnevelly*, it is less abundant and 100 acres in Ambasamudram have been cleared at a cost of Rs. 141. In Kuttalam, the work was neglected. It has recently spread to the Srivilliputtur range.

(3) "*Spike*" *disease.*—*North Salem.*—The cutting of infected trees in Jowlagiri did not prevent the spread of the disease and the area adjoining has now been attacked and infected trees are being removed. Two more attacks have been located in the same reserve.

The Thalli reserve also has been infected. In Tholuvabetta, 25 miles from Jowlagiri, two trees were found infected by undoubted "Spike." The District Forest Officer believes the disease to be caused by Fungi probably heteroecious.

Trichinopoly.—A considerable areain the Kollimalais, over 100 miles from any known spiked area, has been affected. This appears to indicate that the attack is endemic. Recent enquiries show that the disease has been in existence for over two years but has not been reported. Precautions are being taken to remove all spiked trees as well as a band of healthy trees round the infected area.

Tinnevelly.—Signs of "Spike" are said to have been found at Kuttalam but the observation is not yet confirmed.

(4) *Damage by sambhur*.—This was noticed especially near Mundanthurai in *Tinnevelly* where sambhur are very numerous, but recently the sambhur themselves have been dying in large numbers from a foot affection which causes emaciation.

4. Sylviculture.

(*a*) *Natural Reproduction.*

21. Natural reproduction from seed appears to be satisfactory wherever cattle are excluded from the reserves. On the Javadis of *South Vellore*, the reproduction of sandal is good and it has been ascertained that germination started in August. Throughout the known sandal tracts sandal appears to increase rapidly. It has now been found on the slopes of the Sirumalais in *Madura*.

Both in the Chitteris of *North Salem* and Javadis of *South Vellore* the seedling reproduction of teak, *Pterocarpus Marsupium*, *Shorea Talura* and other timber trees is distinctly good.

In *Tinnevelly*, the *Hopea*, *Balanocarpus*, *Vitex*, *Filicium* and *Dichopsis* produce seedlings in profusion.

Coppice reproduction is good throughout the Circle but far better in *Tinnevelly* than elsewhere. In the drier districts *Albizzia Amara* coppices rather too freely, the number of shoots detracting from their size. In these districts, *Acacia Sundra*, *Chloroxylon Swietenia*, *Anogeissus latifolia* and *Cassia fistula* are particularly good coppicers.

(*b*) *Artificial Reproduction.*

22. *Regular plantations—North Vellore*.—Sixteen acres of teak, rosewood, acha, red-sanders, mahogany and casuarina were planted in Amerdi plantation at a cost of Rs. 892 during the year. The plantations are doing well. *North Salem*.—In the Sannyasimalai plantation, about 12,480 pits were dug and planted. About three-fourths of the plants are reported to be thriving. These small plantations without any definite object are to be deprecated.

In the Pine plantations of *Madura* 50 acres of new planting were carried out and casualities were replaced over 510 acres but further planting will be stopped after putting in the seedlings already raised in the nurseries.

In *Tinnevelly*, the Kani Taungya plantation was continued on a small scale. About 20 acres have now been planted.

Twenty-four thousand palmyra nuts were put down in the Teri sand dunes. The working plan has run out, but will be revised shortly.

23. *Cultural operations—North Vellore*.—The operations were restricted in accordance with the policy enunciated by Mr. Beadon-Bryant. The planting in the Panamadangi reserve was as usual successful and is being extended gradually. *South Vellore*.—Redsanders seed was sown at Thaniar and Kottur but has not been a success. *South Arcot*.—Seeds of miscellaneous species were sown over an area of 1,123 acres with poor results. *North Salem*.—The result of sandalwood sowing in the Nagaramalai plantation has on the whole been a failure except in about one-fifth of the locality where the seedlings have established themselves and are doing well. *South Salem*.—Dibbling in seeds in blanks in felled coupes and planting cuttings and sowing seeds in pits in specially protected areas were continued as usual. A large quantity of sandal seed was also sown in the Upper slopes of the Shevaroys and the

result is not satisfactory owing to the failure of timely rain. Sandal seeds were also sown in selected places at an altitude of 2,000 to 2,500 feet on the Peria-Kalroyans, Pachamalais and Kollimalais and the result is reported to be partly successful. Seeds of timber and fuel species dibbled in the coupes felled in the previous year in the Attur Range were also fairly successful. *Tinnevelly.*—Seeds of the principal species were sown broad cast in felled coupes and the result was poor everywhere except in Srīvilliputtūr Range. One thousand palmyra nuts were sown in Virusampatti working circle and 65 per cent. have struck.

(c) Operations for improvement of growing stock.

24. In all Districts creepers and climbers affecting standards in all the felled coupes were as usual cut and removed by subordinates. The fencing of felled coupes is also usually insisted on except in *Tinnevelly* where it is unnecessary. The cutting of creepers damaging sandal has been much neglected in the past but is now being undertaken on the Chitteris and Javadis in accordance with the working plan.

The District Forest Officer, *Trichinopoly*, has recently pointed out the need for this operation in the Kollimalais.

(d) Experiments.

25. *Dalbergia Sissoo.—North Vellore.*—This species introduced in Amerdi plantation has given astonishing results. It has been introduced in Pichanur tope, Pinnathorai, Odugathur and Arasampet.

Hardwickia binata—North Vellore.—This species is thriving well in Amerdi plantation. *Tinnevelly*—four pounds of seed got from Coimbatore were sown but there was no germination.

Pterocarpus santalinus. Redsanders.—*North Vellore.*—This species is doing well in Amerdi plantation. *South Arcot.*—2,160 Redsanders in Salavadi and 50 in Peradikuppam reserves from 1 to 10 in height are reported to be doing well. *Tinnevelly.*—Seeds of Redsanders were sown in Rangarthirtham working circle. Forty seedlings survive and the rest were unfortunately burnt but are shooting again.

Swietenia Mahogani and Macrophylla.—Desultory experiments are being continued on a small scale but are devoid of interest in this circle.

5. Exploitation.

(a). System of Management.

(i) Major Forest Produce.

26. The total area of forests under working-plans is 2,782 square miles. The various sylvicultural systems in force over this are shown in the following table :—

Clear fellings	1	.04
Simple coppice	183	6·58
Selection fellings	183	6·58
Coppice with standards	1,171	42·09
Improvement fellings	431	15·49
Pastoral method	42	1·51
Forest for which working-plans have been prepared but not subjected to any definite working	771	27·71
	2,782	100·00

(1) *Clear or Regeneration fellings* and

(2) *Selection Fellings.*

27. *Clear or regeneration fellings.*—Five coupes of 305 acres of casuarina in *South Arcot* and 2 coupes of 46 acres of casuarina in Tanjore were clear felled.

Selection fellings.—The area shown under this head is misleading as Bamboo and Sandal working form the principal items. Only three coupes are worked under regular selection fellings.

(3) & (4) *Improvement* and

Coppice fellings.

28. *Improvement fellings.*—Six coupes of 614 acres in *North Vellore* and 1 timber coupe of 298 acres in *South Vellore* and a few timber coupes in *South Salem* were worked under Improvement fellings.

Coppice with standards.—The following coupes were felled under coppice with standards : 25 fuel coupes of 1,771 acres in *North Vellore*, 40 coupes of 2,497 acres in *South Vellore*, 53 coupes of 4,704 acres in *South Arcot*, 7 coupes of 1,563 acres in *North Salem*, 28 coupes of 2,740 acres in *South Salem*, 77 coupes of 3,460 acres in *Trichinopoly*, 34 coupes of 3,534 acres in *Madura*, 15 coupes of 1,337 acres in *Tinnevelly*.

Coppice without standards.—One coupe of 13 acres and 5 coupes of 189 acres were worked in *North Vellore* and *Tinnevelly* respectively.

(5) *Unregulated fellings.*

29. In *North* and *South Vellore*, *South Arcot* and *South Salem* unregulated fellings under the permit system were confined to unreserves. In the reserves of Kodaikanal and Palni Ranges of *Madura* selected and marked timber trees were sold for domestic requirements on payment of seigniorage fees.

(ii) MINOR FOREST PRODUCE.

(1) *Miscellaneous Produce.*

30. Minor forest produce was as usual leased out. Permits were issued for manure leaves in *North* and *South Vellore*, *South Arcot*, *Trichinopoly* and *Tinnevelly*. In *Trichinopoly*, 296 maunds of Divi Divi pods were collected departmentally but could not be sold. Small quantities of cardamoms, dammer, mace and the sambhur horns were collected by the Kanis of *Tinnevelly* at a cost of Rs. 60 and realised Rs. 91½.

(2) *Extraction of fodder.*

31. Free removal of grass was allowed in *North* and *South Vellore* and *South Arcot*.

In *North Salem*, the grass in three closed coupes was sold for Rs. 86.

In *Madura*, removal of grass was allowed on permits.

In *Tinnevelly*, the Nanal and Korai grasses are much valued and are included in the minor Forest produce contract.

(3) *Hay-making.*

32. The Banavaram reserve in *North Vellore* was leased out to the Military department on payment of royalty of Rs. 2 per ton of hay removed and a sum of Rs. 303 was realised during the year against Rs. 98 in the previous year.

(4) *Grazing.*

33. The revenue derived from grazing was Rs. 1,92,251 against Rs. 2,05,053 in the previous year, a decrease of Rs. 12,802 or 6·2 per cent. The decrease was due chiefly to the closure of reserves against goat browsing in *North Vellore*, *North Salem* and *Madura*.

(*b*) *Agency of exploitation.*

(i) DEPARTMENTAL AGENCY.

34. The work done by departmental agency is now very trifling and represents barely 2 per cent. of the total outturn.

(ii) BY PURCHASERS.

35. *Timber.*—44,005 cubic feet. Due to fall in the collection of tree value from lands assigned on darkhast in *Madura* and *Tinnevelly* and also to the non-sale of timber coupes in *Madura*.

Fuel.—18,02,141 cubic feet. The decrease was due to a less number of coupes being sold in *North Vellore*, *North Salem*, *Trichinopoly* and *Madura*. In *Madura* and *Tinnevelly*, trees on tank beds were only sold to a limited extent. There was also decrease in the sale-proceeds of dead trees in the unreserves disposed of by the Revenue Department in *South Vellore* and *South Salem*.

Bamboos.—Rs. 11,125. Due to comparatively poor yield from coupes leased out in *North Vellore*, to certain bamboo contractors in *North Salem* not having paid the instalments in time and to the major portion of sale amounts of 1914-15 coupes having been credited in the latter part of the previous year in *Trichinopoly*.

Grazing and minor produce.—Rs. 46,878. Due to the stoppage of trade in barks on account of war, to the closure of reserves to goat browsing in *North Vellore*, *North Salem* and *Madura*. Minor forest produce leases in *Trichinopoly* and *Tinnevelly* realised less than usual and there was a decrease in the sale of manure leaf permits in *South Salem* and *Trichinopoly* owing to increase of the seigniorage fee.

(iii) Rights and Privileges.

36. The privileges allowed were as usual for grazing at reduced rates in *North* and *South Vellore* and removal of thatch grass to the value of Rs. 383 in *South Arcot*. Tapping of patta palmyras in reserves was allowed in *Tinnevelly*, the rent being Rs. 1,722 against Rs. 2,339 in the previous year.

(iv) Free Grants.

37. The estimated value of free grants was Rs. 13,568 aginst Rs. 9,425 in the previous year. The increase was due chiefly to a larger supply of Korambu materials to the Public Works Department in *Trichinopoly* and to the large grants of timber made by the Revenue Divisional Officer, Tiruvannāmalai, for reconstructing burnt houses, but it was partly counterbalanced by a small decrease in the free removal of grass in *North Vellore*.

The quantity and estimated value of produce removed by right holders and free grantees are shown in the following abstract :—

—	Timber.		Fuel.		Bamboos.	Grass and grazing.	Other minor-produce.	Total value.
	Cubic feet.	Value.	Cubic feet.	Value.	Value.	Value.	Value.	
		RS.		RS.	RS.	RS.	RS.	
Right holders	..	..	..	..	..	..	2,105	2,105
Free grantees	90,493	7,744	3,984	254	308	3,337	1,930	13,568
Grants at reduced rates ..	..	..	..	..	..	1.928	..	1,928
Total ..	90,493	7.744	3,984	254	308	5,265	4,035	17,601

(c) *Outturn and Sources of Forest Produce.*

38. The total outturn is given in the following statement.

Agency of exploitation.	Timber including sandalwood in cubic feet.		Fuel in cubic feet.		Bamboos-value.		Minor produce including grass and grazing.value.	
	1913-14.	1914-15.	1913-14.	1914-15.	1913-14.	1914-15.	1913-14.	1914-15.
					RS.	RS.	RS.	RS.
By Government agency ..	21,605	19,338	64,207	62,294	277	201	706	531
By purchasers	964,871	920,866	6,579,693	4,777,552	1,12,914	1,01,789	4,29,093	3,82,215
By right holders	..	..	..	..	..	..	2,389	2,105
By free grantees	47,810	90,493	26,689	3,984	46	303	3,677	5,267
Total ..	1,034,286	1,030,697	6,670,589	4,843,830	1,13,237	1,02,293	4,35,865	3,90,118

The variations have already been explained. The rates for grazing fees levied in the several districts are shown in Form No. 74. The number of animals licensed on payment was 1,267,224 against 1,282,494 in the previous year.

CHAPTER III.—FINANCIAL RESULTS.

39. The revenue and expenditure of the year are compared with those of the previous year and the average of the preceding quinquennium in the following abstract :—

—	1914-15.	1913-14.	Average of preceding five years.
	RS.	RS.	RS.
Revenue	12,45,251	13,01,343	13,76,476
Expenditure.			
A.—Conservancy and works including refunds	2,38,364	2,79,752	3,93,334
B.—Establishments) .. .	3,84,569	3,77,947	3,52,588
Total Expenditure ..	6,22,933	6,57,699	7,45,922
Surplus ..	6,22,318	6,43,644	6,30,554

Compared with the previous year there was a decrease of Rs. 56,092 under revenue and Rs. 34,766 under expenditure. 49·7 per cent. of the total revenue was derived from major produce, 40·7 per cent. from minor produce and 9·6 per cent. from miscellaneous sources. Of the expenditure 42·4 per cent. was devoted to the upkeep and improvement of the forests, 2 per cent. to exploitation and 55·6 per cent. to miscellaneous items. The proportion of net to gross revenue rose from 49·5 per cent. to 50 per cent. The outstanding revenue at the close of the year was Rs. 2,72,800 of which Rs. 37,837 fell due within the year. The estimated value of timber and other produce at sale depots at the close of the year was Rs. 51,851 against Rs. 78,409 at the commencement of the year showing a decrease of Rs. 26,558.

RECEIPTS.

The chief variations are shown below :—

(i) *By Departmental Agency.*

Sandalwood.—Rs. 20,756 due to bad prices and less quantity sold on account of war.

(ii) *By purchasers.*

Timber — Rs. 9,455—*vide* paragraph 35 *supra.*

Fuel + Rs. 25,905. There would have been a large decrease but for sale of disafforested Casuarina plantations in *South Arcot* and *Tanjore* which realised large sums.

Bamboos — Rs. 8,859 }
Grazing — Rs. 12,802 } due to reasons explained in paragraph 35 *supra.*
Minor produce — Rs. 31,130 }

EXPENDITURE.

A. " *Conservancy and Works* ".

The expenditure was less than that of the previous year by Rs. 41,388. The decrease was due chiefly to the cessation of departmental operations, the decrease of commission paid to permit issuing officers owing to reduced collection under II (*d*) and II (*e*), the non-execution of road and building works and to the curtailment of expenditure under planting operations.

B. " Establishment."

The expenditure exceeded that of the previous year by Rs. 6,622. The increase was due mainly to the employment of the Special Working Plans Officer and his establishment throughout the year.

CHAPTER IV.—ADMINISTRATION.

40. *Circle charge.*—Mr. J. S. Battie held charge of the Circle up to 2nd November 1914 and retired from service; Mr. P. M. Lushington assumed charge of the Circle from the same date.

During the year Mr. F. J. Marshall was appointed as Forest Engineer and was posted to the work of roads in the *South Vellore.*

Mr. R. B. Cornwell, Extra Assistant Conservator, was posted to working plans.

The Special Deputy Collector's appointment in *Madura* ceased as the work was finished.

New ranges—South Salem.—The division of Harur North and South Ranges into three Ranges was sanctioned during the year in G.O. No. 3671, Revenue, dated 16th December 1914 and the third Range called Chitteri Range was formed from 8th April 1915. *South Vellore.*—An additional Range, contemplated many years ago, in the Javadis was formed during the year and called Santhavasal. The large and important Range of Tirupattur requires sub-division. *Madura.*—Proposals are under consideration for the formation of a third Range by sub-dividing the existing Palamedu and Kanavoipatti Ranges. *Trichinopoly.*—The reduction of the existing number of Ranges is under consideration.

Establishment.—During the year one Ranger in *South Salem* for the Chitteri Range, five temporary Deputy Rangers for *Working Plans* and three for Sandalwood operations, in *North Salem* were sanctioned. Mr. Cornwell was confirmed as Extra Assistant Conservator and Mr. J. A Aranha, Ranger, second grade, was promoted to Extra Assistant Conservator and posted to the Madras Forest College. The proposals for the reorganisation of subordinate staff, which were under consideration during the year, have since been submitted.

41. *Work of superior officers.*—The work of all District Forest Officers has been favourably reported on by the Collectors of the district. I specially call attention to Mr. H. A. Latham's untiring zeal in dealing with wrong settlement and wrong demarcation. Mr. C. C. Wilson, Working Plans Officer, has been indefatigable and his careful enumeration of sandal trees in the Javadis and North Salem Hills are worthy of the highest commendation. M.R.Ry. Rai Sahib E. C. M. Mascarenhas Avargal has been most successful in his dealings with the Malayalees on the Chitteris of *South Salem.*

42. *Executive staff.*—The work and conduct of the Rangers was good on the whole but there are several men who, in spite of their training, are incapable of dealing with the elementary rules of Sylviculture and the simple prescriptions of working plans.

The best Rangers of this Circle appear to be C. M. Belliappa, K. L. Muniswami Ayyar, E. Dawson, R. E. Lemos and R. Manickam.

One Ranger committed suicide in *South Vellore.* No Rangers were dismissed but one was reduced and one suspended.

The Deputy Rangers were fairly satisfactory as a class.

43. *Protective staff.*—The conduct of the protective staff is reported to be unsatisfactory in all districts except *Madura* and *Tinnevelly.* There were 211 removals or dismissals, 115 suspensions and three reductions in this class.

44. *Ministerial establishment.*—Generally reported to be satisfactory.

45. *Health of establishment.*—Reported to be generally good except in the Pachamalais, Kollimalais and Javadis. One Forester in *South Vellore* and one forest guard in *Trichinopoly* died of Malaria. In *North Vellore*, one guard was murdered while detecting a case of illicit grazing, *in South Vellore*, one forest guard and one watcher

were murdered by the Malayalees of the Inner Javadis while detecting a goat browsing case and in *Tinnevelly*, one forest guard was murdered while detecting a case of intentional firing of reserves.

46. *Relations between Revenue and Forest officers* reported to be cordial throughout the circle.

47. *Service books* were maintained and verified in all districts.

48. *Conservator's inspections.*—The Conservator was on tour for 158 days. All the districts except Trichinopoly and South Arcot were visited and the offices of these districts inspected. Inspection notes were written for Tinnevelly and North Salem.

49. *Touring of District Forest Officers.*—The minimum period of touring required was exceeded in all districts except *Tinnevelly* where the deficiency was slight.

50. *Inspection of Range offices.*—All the Range offices were inspected during the year.

51. *Audit of accounts of District Forest Offices.*—The accounts of all the districts were inspected by the Assistant Inspector of Local Fund Accounts and the result was generally satisfactory.

52. *Imperial Forest College, Dehra Dun.*—One probationer was under training in *Tinnevelly* and deputed to the College during the year. One of the probationers deputed from this Circle has since returned from the College and posted to this Circle.

53. *Madras Forest College, Coimbatore.*—Two Rangers and one Deputy Ranger returned from the College, one Ranger with honours and distinction and the other two with higher standard certificates. Five are under training and five Deputy Rangers have been deputed for 1915-17 course.

54. *Vernacular Training School.*—The continuance of the school was sanctioned in Government Order No. 227, Revenue, dated 25th January 1915, for a further period of three years. Students from *Chingleput* district were deputed to this Circle as the school in Central Circle is Telugu. The remaining candidates were selected from *Trichinopoly* and *Tinnevelly*. Out of 29 students selected, two were sent back on account of ill-health and poor work and of the remaining 27, 12 obtained first class, 10 second class and the remaining five third class certificates. The control and management by the Instructor M. Pakkyanathan is reported to be exceedingly good.

CHAPTER V.—GENERAL.

55. *Realization of Revenue from the usufruct of toddy-yielding trees.*—The revenue realized was 10,279 against Rs. 10,251 in the previous year. The fixed fee system continued to be in force. In *South Salem*, the usufruct of trees not taken up under the fixed fee system was as usual leased and the amount realised was Rs. 3,276 against Rs. 3,162 in the previous year.

56. *Measures adopted to encourage the growth of manure leaf yielding trees and shrubs.*—In *Trichinopoly*, a small quantity of Sesbania Aculeata was sown in one of the padugais and the seed supplied to the Agricultural Department. From *South Salem*, it is reported that a good start has been made this year with Daincha cultivation in Attur taluk. In *South Arcot*, agricultural pamphlets were distributed to leading ryots and the advantages of growing green leaf manure were explained by the Revenue officials; but the ryots were slow in taking advantage of the instructions. In the meanwhile the forests of several districts notably *North* and *South Vellore* are being spoilt by the pernicious practice of issuing licenses for manure leaves.

57. *Grant of cowles for the formation of Casuarina Plantations in sandy areas.*—No applications were received. In *South Arcot*, the disafforested land is being planted by the purchasers with casuarina on an extensive scale.

58. *Cultivation in reserved forests.*—Leases of the previous years were renewed in *South Vellore*, *North and South Salem*, *Trichinopoly* and *Madura*. *In North Salem*, the settlement of the Biligundlu fishermen in 75 acres of Natrapoliem reserved forest has not yet been effected. In *Trichinopoly*, the right of cultivating korai grass in

the Lalapet reserve was leased for five years during the year at Rs. 515 per annum. In *Madura* the question granting leases for lands on which cardamoms or other crops have been established, has not yet been finally settled.

59. *Improvement of water-supply in State forests.*—The scarcity of water in the hill forests of this circle is particularly noticeable in the hills of *North* and *South Salem* and in the Javadis *South Vellore*, but nothing has been done hitherto to improve the water-supply. The bunding of streams has been carried out to a small extent in six reserves in *North Vellore* but the localities do not appear to have been well chosen.

One or two tanks have been repaired but nothing to really improve the water-supply has been effected.

60. *Supply of forest produce to meet the wants of the people.*—The contract system has been in force in all the districts and contractors are usually bound to supply the wants of the people at reasonable rates. It is noticed however that the ryots do not as a rule avail themselves of these opportunities, but supply themselves from patta lands, unreserves, or by pilfering from the reserves. In both *Salem* and *Madura* there has been a decrease in the demand for fuel owing to the war having interfered with the dyeing industry.

61. *Sale of fuel at the edge of forests.*—This is generally done by coupe contractors in *North Vellore, Trichinopoly* and *Madura*. The fuel obtained by departmental exploitation in Musiri Range, *Trichinopoly* district, was disposed of at the edge of the forests by public auction.

62. *Arrangements made for the transfer of sale depots to private agency.*—The contract system is now fully established in all the districts of the Circle and contractors have opened depots in all important towns.

63. *Free removal of grass.*—This has been referred to in paragraph 31 *supra*. As usual the concession was largely availed of by the ryots in *North Vellore*. In *South Vellore*, free removal was permitted up to the beginning of the fire season.

64. *Hill tribes.*—The Malayalees of the Chitteris in *South Salem* and in the Chengam and Polur Javadis of *South Vellore* have given the department considerable assistance in protecting the forests from fire and in the protection of sandal and the same is the case in parts of the Kollimalais and Pachamalais of *Trichinopoly*. In the Tirupattur Javadis and in the Kollimalais of *South Salem* shifting cultivation still persists. In the latter district, the hills have been classed as assessed waste by the Settlement officer. On the Tirupattur Hills the matter is being dealt with by the Forest Commissioner.

A guard and watcher were murdered in the Tirupattur Javadis and some of the subordinates were assaulted by Malayalees in the Perumbalur range of *Trichinopoly*. In the Tirupattur-Javadis the Malayalees have been ruthless in their destruction of sandal and the Malayalees living at the foot of the Pachamalais are suspected of smuggling sandal and timber. On the whole considerable progress has been made in our dealings with this class of hillmen, though there is still room for improvement in several directions.

In *Tinnevelly* district, a settlement of Puliyars has been established at Puliyuthu. They were employed on fire line work and as patrols. At Kariar the small settlement of Kanis have raised some successful teak plantations, the plants being raised with the field crops. The area is being extended yearly and the early plantations are now well established.

65. *Prospecting licenses.*—No license was granted during the year.

66. *Timber and sandalwood transit rules.*—The rules continued to work satisfactorily and without friction. In *North Salem*, 409½ maunds of sandalwood seized last year on suspicion were released as it was not proved to be illicit removal. Two small cases of removals in contravention of the rules brought to notice by the Mysore Forest authorities were compounded. From *Trichinopoly*, the property mark of two persons were registered during the year and applications from two other individuals were rejected as they did not comply with the rules.

67. *Rules under sections* 26 *and* 32 *of the Forest Act.*—The rules under section 26 worked satisfactorily. From *North Salem*, it is reported that no attempt was made by the Revenue Officers to protect the classified growth in the unreserved lands and that steps are being taken to remedy the same.

In *Madura*, the Zamindar of Seitur on behalf of Minor Zamindar of Elumalai has applied under section 32 (*a*) of the Forest Act for the management of Elumalai forests by the Government. His application is being considered. In *Tinnevelly* the rules under section 26 were extended to the forest and waste lands in Seitur Zamin and the Ghat slopes and spurs in the Zamin were declared reserved land.

68. *Rules regarding levy of composition fees.*—Attention was paid to the proper working of the rules.

69. *Arrangements made in holding the villagers adjacent to particular forests responsible for protection of those forests by dividing the village and blocks of forests concerned.*—Very little progress has been made in this direction in the plains, but in the hills a working plan has been prepared for the Chitteris which embodies such arrangements. These principles are being extended to the Javadis.

In *South Arcot* as offences of illicit grazing and cutting were very rife in two reserves, a notice of warning was issued to the ryots that they would be closed, if they do not desist from committing offences.

Live and Dead Stock.

70. *Live-stock.*—There is no live-stock in the Circle.

71. *Inventory of valuable stock.*—Stock registers are maintained in all districts and verified at inspections.

72. *Rain-gauges.*—Readings are recorded in all districts. In *Trichinopoly*, two new stations were opened this year in accordance with the prescriptions of the working-plan for Musiri Range. In *Tinnevelly*, a gauge was put up again at Mudaliarathu.

73. *Specimens.*—Timber specimens were sent to Conservator of Forests, Northern Circle, from *North Vellore*, *Madura* and *Tinnevelly*, in connection with the preparation of the vernacular list of trees and shrubs. Specimens of sandalwood have been sent from *Trichinopoly* and *Tinnevelly* to Forest Research Institute, Dehra Dun, for analysis of their oil value. Herbarium specimens were sent from *Tinnevelly* to the Forest Botanist, Dehra Dun.

Suits.

74. *North Vellore.*—A boundary dispute in Gundlapalle reserve between the Zamindar of Satghur Bagayat and the Forest Department is pending inquiry with the Assistant Director of Survey. *South Arcot.*—The civil suit referred to in the last year's report was dismissed with costs, *i.e.*, ended in favour of the subordinates concerned. *Trichinopoly.*—The suit filed by Arunachala Reddi, referred to in the last year's report, was decided in favour of Government and an appeal has been preferred in the High Court.

One Subba Nadan, contractor of Thalanayar coupe VIII, has filed a suit against Government in the District Munsif's Court of Tanjore claiming damage and costs for his not having been allowed certain concessions in the working of the coupe.

A pattadar of Kulitalai has also filed a suit against Government and the contractor Kuppuswami Udayan for damage done to his patta land by the contractor by the working of the fuel coupe leased to him by the Forest Department.

Madura.—One Santhanatham Chetti, contractor for the tank-bed trees, has filed a suit claiming damages to the extent of Rs. 2,820 on the ground that he was not given sufficient time to cut and remove all trees sold to him by the Forest Department.

Tinnevelly.—The result of appeal to the Privy Council in Kuttalam water-fall suit is not yet known.

75. *Forest Committee's report.*—The classification of reserves is complete in the *North Vellore*, *Trichinopoly* and *Tinnevelly* and is approaching completion in all the other districts. In *Madura* the classification is pending with the Board.

Four reserves in *North Salem* and 26 in *South Salem* still await classification but in the latter district some revision is required.

In *South Vellore*, all reserves have been classified except those in the Tiruvannamalai Range, which have been inspected by the District Forest Officer and Conservator since the close of the year.

In *South Arcot*, a few small reserves await inspection by the Conservator, otherwise classification is complete.

Panchayat system.—The formation of panchayats has begun and some progress has been made in *North Vellore* and *South Salem*. In both districts the same mistake has been made of handing over a portion instead of the whole reserve to panchayats. Other difficulties have also arisen in connection with the Forest Committee's suggestions notably in handing over of very small areas to a panchayat. Such difficulties are natural at the outset but are likely to be overcome in course of time. In *Trichinopoly* one reserve has been placed under panchayat management. *Tinnevelly* is disappointing, for an effort was made to obtain panchayats but appears to have failed.

The patrol system.—The system has been introduced in *North Vellore*, and *South Arcot* and *South Salem*, but the present establishment is far too small to say how it is likely to work. It will be more generally introduced when the re-organization is sanctioned.

76. *Forest Conference.*—Three Conferences were held by the Forest Commissioner with the Conservators during the year, two at Madras and one at Coimbatore and various subjects on Forest matters were discussed.

Office of the Conservator of Forests,
Southern Circle,
Trichinopoly, 6*th September* 1915.

P. M. Lushington,
Conservator of Forests, Southern Circle.

INDEX.

FOREST ADMINISTRATION REPORT,

MADRAS PRESIDENCY,

WESTERN CIRCLE, 1914-1915.

Chapter.	Subject.	Paras.
I	Constitution of State forests—	
	1. Alteration in area	1
	2. Forest settlement	2
	3. Demarcation	3
	4. Forest surveys	4 to 6
II	Management of State forests—	
	1. Regulation of management—	
	(*a*) Preparation and control of regular working-plans ...	7
	(*b*) Preliminary working-plans reports	8
	(*c*) Annual plan of operations	9
	2. Communications and buildings—	
	(*a*) Roads and bridges	10
	(*b*) Buildings	11
	(*c*) Miscellaneous works	12
	3. Protection of forests—	
	(*a*) General protection	13 & 14
	(*b*) Protection from fire	15 to 17
	(*c*) Protection against cattle	18
	(*d*) Protection against injuries from natural causes ...	19
	4. Sylviculture—	
	(*a*) Natural reproduction	20
	(*b*) Artificial reproduction	21
	(*c*) Operations for improvement of the growing stock ...	22
	(*d*) Experiments	23
	5. Exploitation—	
	(*a*) System of management—	24
	(i) Major forest produce	25 to 30
	(ii) Minor forest produce	31 to 35
	(*b*) Agency of exploitation—	
	(i) Departmental agency	36 & 37
	(ii) By Purchasers	38
	(iii) Right-holders and (iv) Free grants	39
	(*c*) Outturn and sources of forest produce	40
III	Financial results	41
IV	Administration	42 to 57
V	General	58 to 69
	Appendices A and B and Forms Nos. 65 to 67 and 69 to 85.	

V.C.—15

FOREST ADMINISTRATION REPORT OF THE WESTERN CIRCLE

FOR THE

FOREST YEAR ENDING 30TH JUNE 1915.

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

1. Alteration in Area.

Reserved forests.—The area of reserved forests increased from 4,102 to 4,138 square miles. Thirty-five square miles in *South Malabar* and a total extent of one square mile in *South Canara*, *North Malabar*, *Kollegal*, *North* and *Central Coimbatore* were transferred from reserved lands. Seven small areas aggregating 193 acres were disafforested.

Reserved lands.—Four hundred and sixty-three acres consisting chiefly of enclosures in reserved forests were added and 36 square miles were transferred to reserved forests. The area at the close of the year was 114 square miles, of which 96 are leased forests, and five are toda patta lands.

2. Forest Settlement.

2. Thirty-four blocks (47 square miles) remained to be settled at the commencement of the year, to which ten (·72 square mile) were added during the year. Of these twelve blocks (36 square miles) were transferred to reserved forests, leaving thirty-two blocks (11·86 square miles) at the end of the year. Of the latter, the actual settlement was completed for eight blocks.

3. Demarcation.

3. *New boundaries.*— Fifty-eight miles in *Kollegal* and nine in *Central Coimbatore* were newly demarcated at a cost of Rs. 1,102. *Already existing boundaries*—Two miles in the *Nilgiris* and 37 in *North Coimbatore* were permanently demarcated; the demarcation in the latter district was in accordance with the verification by the Special Officer; 38 miles in the same district were also repaired. The total cost incurred was Rs. 2,856. One hundred and seventeen miles in *South Canara* were stone-lined and lockspitted at a cost of Rs. 1,343; a sum of Rs. 65 was also spent in demarcating preliminarily the boundaries of a sandalwood area proposed for reservation. Five miles in *Kollegal* were stonewalled and lockspitted at a cost of Rs. 148. Fifty-four miles of line in *Central* and *South Coimbatore* were repaired at a cost of Rs. 602. In *North* and *South Malabar*, 162 and 62 miles respectively were as usual cleared for the purpose of fire protection, the cost being debited to that head. The length of boundaries cleared or repaired free of cost by subordinates is reported to be 695 miles. In *South Canara*, the *Nilgiris* and *Kollegal*, the subordinates continued to clear and maintain boundaries as part of their normal work, but no accurate record of the results was kept. The demarcation of the new boundary between the *Nilgiris* and *Central Coimbatore*, the object of which is to transfer the lower half of the Nilgiri slopes to *Central Coimbatore* was started in April last. The work which has been inspected by me is in the hands of an Extra Assistant Conservator on special duty for the purpose, assisted by a Surveyor on Rs. 100+25 (hill allowance). It is of the most arduous and tedious character owing to the climate, the labour difficulty, the precipitous slopes to be traversed and the obliteration of the old survey marks which have to be identified by the Surveyor and are often completely buried under

the wash from the slopes. The first 87 chains was done in $2\frac{1}{2}$ months and together with the pay and allowances (exclusive of travelling allowance) of the officers mentioned has cost Rs. 1,340 or at the rate of Rs. 1,232 per mile. The work is estimated to take about two years. To hasten its completion the District Forest Officer has asked for two more surveyors. The sanction of this work arose out of a scheme for supplying the Nilgiri Railway with fuel from the lower slopes to be transferred to *Central Coimbatore.* The line however almost immediately took to using coal and now I see no advantage in carrying out the transfer—rather the reverse.

4. Forest Surveys.

(a) By the Survey of India Party.

4. During the year, no surveys were undertaken.

(b) By Departmental Survey.

5. The survey of timber, fuel and bamboo coupes of the year was carried out departmentally. So were the traces of two bridlepaths in *Kollegal* and *Central Coimbatore*, the alignment of two roads in *Kollegal* and *South Coimbatore* and some miscellaneous items in connection with the fencing of boundaries. The special officer deputed by the Madras Survey Department for the estates on the Anamalais has surveyed 12 square miles and his services will have to be continued for another season. He will resume field work in November 1915.

(c) Maps.

6. *Reference maps under section* 80 *of the Madras Forest Code.*—These are reported to have been maintained except the range reference maps in *Kollegal* and *South Coimbatore.*

Special District Reference Maps—Preparation.—The Forest Map Officer completed the maps of *Ganjām*, *Kistna* and *Nellore* and prepared those of *Vizagapatam*, *Lower Gōdāvari*, *Guntūr* and *North Malabar.* He has yet to prepare the map of *Upper Gōdāvari* and redraw the maps of *Cuddapah*, *Salem*, *Madura*, *Ramnad* and *Tinnevelly* with reference to the alterations of the boundaries of forest divisions. His services have been extended up to end of March 1916 by which time, it is hoped, that the preparation of these reference maps will be finished. *Progress in publication.*—According to the progress statement furnished by the officer in charge, Forest Map Office, Dehra Dun, which relates to this Circle, the maps of *South Canara* and *North Coimbatore* were published and the map of *South Malabar* will shortly be printed. The *Nilgiri* map which was reported last year to be in the press has not yet appeared.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

1. Regulation of Management.

(a) Preparation and Control of regular working plans.

7. *Preparation.*—There was no Working Plans staff in the Circle. The working plan for the eucalyptus plantations in the *Nilgiris* and the subsidiary plans for the manufacture of charcoal in the Newman and Muthinad plantations were sanctioned during the year. The collection of statistics for preparation of a working plan for Gundal bamboo working circle in *Kollegal* continued; the tentative working in Doddahalla valley bamboo working circle was stopped owing to the flowering of the stock. A valuable report on the Tekadi leased forests was prepared by Mr. C. E. C. Fischer, the District Forest Officer. Besides an historical record, it embodies a reconnaissance survey of the forests and suggestions for working which will be of great assistance for the working plan when this is taken up.

Revision.—Statistics for the revision of the working plans for the forests of Coondapur and Sankaranarayana ranges in *South Canara* and of Begur and Chedleth in *North Malabar* have not been completed. The revision of the working plans for the forests of Mettupalayam range and for Tadagam reserved forest has just been completed. Mr. Habibulla Sahib, Extra Assistant Conservator, is engaged in this work. The revision of the working plan for the forests of Erode range could not be attended to owing to changes of officers in charge of *Central Coimbatore* division.

A survey by the Survey of India and an allotment of staff have been arranged for the preparation of the final working plan of the Nilambur teak plantations which will be started by Mr. R. Bourne after the present north-east monsoon.

Control.—The following were the important deviations:—*South Canara.*—The exploitation in Chittur, Bakudi, Chinkramale and Durgamale fuel and Uppinangadi timber working circles is behindhand chiefly for want of demand. Narimogar fuel coupe II was not worked as coupe I was not completed. The exploitation in Mulliar fuel working circle having fallen in arrears, the period of rotation was extended and the coupes were rearranged. *North Malabar.*—The work in Begur coupe is in arrears; sub-coupe C commenced last year and coupes D and E of coupe XVIII were completed. *South Malabar.*—Thinnings in Edacode and Karumpoya and clearing parasites in Edacode plantations were not completed. *The Nilgiris.*—The improvement fellings in Mudumalai working circle were resumed, the old stock of timber having been disposed of. The prescriptions of the plan for plantations were carried out except certain minor works. *Kollegal.*—The work in Araipalayam fuel working circle is backward owing to exploitation of smaller areas for want of demand. The first rotation for the sandalwood areas in Bailur and Madeswaranmalai was over in 1910-11. The rest of the plan has been broken up by the appearance of spike disease and the havoc resulting from it. The sandal working plan in *North Coimbatore* remained in abeyance for the same reason. *Central Coimbatore.*—The areas under the hay working circle in Erode range were transferred to the management of panchayats. Bamboos were not extracted from Sholakarai and Walayar working circles as per prescriptions of the working plan owing to the appearance of general seeding followed by the death of the whole stock; but dead bamboos were removed from certain areas. The Bolampatti working plan except for the Chinnar working circle was unworkable. *South Coimbatore.*—The Talinji working plan was set aside pending revision, and felling in the Varigali valley was stopped pending the construction of export road. The size and location of coupes in the fuel working circles has not been followed for many years for want of demand for the produce.

(b) *Preliminary Working Plans Reports.*

8. *South Canara.*—The preparation of a working scheme for the extraction of overmature timber in 48·95 square miles of ghat forests exploitable by the Kasaragod river was completed by Mr. Hart, Extra Assistant Conservator, and it has since been sanctioned. Systematic working was continued in one bamboo and three fuel coupes in *Kollegal* and nine fuel, ten bamboo and three sandalwood coupes in *North Coimbatore.* But as yet there are no working plans for these areas.

(c) *Annual Plan of Operations.*

9. The following were the important deviations besides those mentioned under (*a*).—*South Canara.*—Mulliar coupe road was not constructed as the produce was floated. The construction of Range quarters at Coondapur and of subordinates' lines at Kollumoguru was postponed as funds were required for other works. The Deputy Ranger's quarters at Herur were not constructed owing to delay in the acquisition of site. The stone-lining of some of the forests was not undertaken pending verification of boundaries. *North Malabar.*—A well at Tholpatti was not sunk, and some demarcation of forests was not carried out owing to discrepancies in boundaries. *South Malabar.*—Serambi and outhouses at Erambadam were not constructed as they are now considered unnecessary. *The Nilgiris.*—The construction of subordinates' lines at Kargudi was postponed for want of labour, also a road in Coonoor peak plantations, as the estimate was not ready. *Kollegal.*—Araipalayam-Gundal bridle path was not constructed for want of funds and the subordinates' quarters at Mathipuram, pending revision of establishment. The building of a rest house at Doddasampagai was postponed and will perhaps be cancelled. Fencing the compounds of certain rest-houses and the fire protection of Gundal valley were not taken up for want of establishment. *North Coimbatore.*—Onnaitittu and Ullurthanda coupes were not exploited for want of demand. The following works were not carried out for want of funds and establishment:—Tracing and estimating for Kanavoicombai-Ugnium and Kavalur-Gundri bridle-paths, extension of Hassanur-

Hulikerai road, repairs to certain roads, rest-house at Chennampatti, subordinates' lines at Bailathur, Chennampatti and Ullurthanda, wells at Jeergahalli, Chennampatti and Ullurthanda, demarcation of North Bargur and acquisition of minor enclosures in Gutialattur. *Central Coimbatore.*—Improvement fellings in Tadagam and Mettupalayam forests were not carried out the working plans not having been sanctioned; some of the fuel coupes were not sold for want of offers. Inspection shed at Sottayur and Anaimulli-Chindakki bridle-path were postponed in accordance with the provision in the quinquennial scheme. Anaiarkandi-Muthikolam bridle-path was not undertaken the trace not having been made. The demarcation of Anaikatti forest was not done as it was not notified under section 16 of the Forest Act. *South Coimbatore.*—Coupe XXIII of Tekadi leased forest was not felled as coupe XXI was not completed. Subordinates' lines in the Varigali valley and at Pothumadai and Deputy Ranger's quarters at Tekadi were postponed in favour of urgent works. Elephant kraals in the Varigali valley were not constructed for want of labour as well as the dams in the Amaravati valley owing to change of rangers. The Mount Stuart ghat road was not commenced as the investigation and preparation of estimates by the special Forest Engineer were not completed. Apart from finishing the incomplete works of the previous year the following chief works were carried out *though not provided in the Plans of Operations. South Malabar.*—Carrying out experiments and observations regarding reproductive power of bamboo, improvement of a channel from Nilambur to Karumpoya for floating purpose, construction of Ranger's quarters at Nedungayam, reconstruction of Nellikutta serambi and repairs to Chanakundumukku-Mundakadavu road. *North Coimbatore.*—Felling fuel in certain coupes which were in arrears and sandalwood in Mavahalla coupe VI. *Central Coimbatore.*—Opening of a bamboo coupe in Chenat Nair reserved forest. *South Coimbatore.*—Construction of subordinates' lines at Palar and of outhouses at Attaikatti and eradication of lantana.

2. Communications and Buildings.

(*a*) *Roads and bridges.*

10. The amount spent under this head was Rs. 47,303 against Rs. 45,251 in the previous year; of the former, a sum of Rs. 25,155 was spent on new works and the balance on repairs against Rs. 23,180 and Rs. 22,071 respectively in 1913–14. *Important new works of the year—South Canara.*—Construction of Haladi-Rattadi and Herur-Hulimeshpare roads $8\frac{1}{4}$ miles. *North Malabar.*—Construction of a cart-track from Mysore frontier to Bavali, 3 miles of Brahmagiri-Ampalaparai bridle-path and bridges on the Kottiyur road. *South Malabar.*—Construction of 5 miles of a bridle-path in the Silent Valley. *The Nilgiris.*—Mudumalai—Torapalli road was commenced; construction of a cart-track and an inspection path in Cairnhill plantation; commencement of Mudumalai-Doddakatti bridle-path. *Kollegal.*—Improvement of Hossore-Ponnachi bridle-path (14 miles). *North Coimbatore.*—Eight and three-fourths miles of ghat roads at a cost of Rs. 7,351 were completed. *South Coimbatore*—Construction of a cart road to tap Punachi working circle and completion of Muttialkanavoi-Manthorai cart road.

The work of Forest Engineer.—This officer arrived in this circle in November 1914 and works under the direction of the Superintending Engineer, IV Circle, Public Works Department. He was first engaged in revising an estimate for the new Mount Stuart ghat road—a distance of about 5 miles. This necessitated checking and inspection of the trace. A considerable improvement was made in the alignment of the road and an estimate costing Rs. 31,000 was prepared against the previous one of Rs. 73,309. This work was finished about the close of May 1915. The designs and estimates having since been found faulty and incomplete by the Superintending Engineer, are being revised. He was also engaged in checking the Tekadi tram trace. A continuous trace up the ghat as an alternative to the "inclined plane" was attempted and proved successful. The cost of the two investigations including the pay of the Forest Engineer and the cost of his establishment as debited in the accounts of the Public Works Department amounted to Rs. 6,894. Owing to the unhealthiness of the localities, there were constant interruptions and progress was not satisfactory. One of the subordinates died and another had to be sent away on leave.

Tramways—South Coimbatore.—The tramway in Tekadi leased forest was extended. The year's working showed a net profit of Rs. 2,416 against a loss of Rs. 754 in the previous year. All the bullocks having been engaged in carting timber to the plains, the buffaloes and a few pairs of hired bullocks were used in tramming. The outturn of work during the year was 4,328 ton miles against 2,105 in the previous year and the working charges decreased from Rs. 2-10-2 to Rs. 1-9-9 per ton mile.

(b) Buildings.

11. The expenditure on new buildings amounted to. Rs. 30,799 and on repairs and maintenance to Rs. 10,667; the figures for the previous year were Rs. 27,776 and Rs. 12,114 respectively. The principal new works of the year were—*Rest houses*—two at Poochipara and Tiruvizamkunnu in *South Malabar* and one each in *Kollegal* and *North Coimbatore* commenced last year were completed. One was constructed in *Kollegal* and three were in progress in *North Coimbatore*. *Serambis*—Doddakatti camp in the *Nilgiris* was completed. *Inspection sheds, store houses, etc.*—Commencement of one inspection shed in *South Canara*. A depot office and store room at Beypore in *South Malabar* was constructed. *Range offices*—Two in *South Canara*, one each in *North* and *Central Coimbatore* commenced last year were completed. *Range quarters.*—Completion of one each in *South Canara* and *North Coimbatore* and commencement of one in *South Malabar*. *Subordinates' lines.*—Completion of two sets in *North* and *South Coimbatore*; two were also in progress in the former; construction of one set each in *Central* and *South Coimbatore*; one in the *Nilgiris* was commenced.

(c) Miscellaneous works.

12. The chief works of the year were—sinking two wells in each of the *South Canara*, *South Malabar* and *Kollegal* divisions; three were completed and four in progress in *North Coimbatore*. Dams were constructed in the Kolvalli and Bavali rivers in *North Malabar* and the floating channel from Nilambur to Karumpoya in *South Malabar* was improved. The botanical garden at Manantoddy in *North Malabar* was fenced. The tank at Kaikerai in Gutialattur reserved forest in *North Coimbatore* was repaired. The total expenditure incurred during the year was Rs. 8,181.

In accordance with the advice of Mr. Beadon-Bryant, late Inspector-General of Forests, a scheme for construction of roads and buildings in the circle for the quinquennium commencing from 1914-15 was prepared, and approved tentatively by the Board of Revenue after the close of the year.

Telephone.—The telephone service in *South Coimbatore* had frequent interruptions. Additional facilities to keep the service in order have since been promised by the Telegraph department. When the line was in working order, it was useful.

3. PROTECTION OF FORESTS.

(a) General Protection.

13. The year's offences are classified and compared with those of the previous year in the following statement:—

Class.	Injury to forest by fire.		Unauthorised felling or appropriation of wood and minor forest produce.		Grazing without permission or in tract in which grazing is prohibited.		Other offences.		Total cases.	
	1913-14.	1914-15.	1913-14.	1914-15.	1913-14.	1914-15.	1913-14.	1914-15.	1913-14.	1914-15.
Cases taken into Court ..	25	11	388	420	112	152	80	75	605	658
Cases compounded ..	62	54	1,911	1,693	455	474	214	233	2,642	2,454
Cases undetected ..	331	133	21	31	..	15	..	2	352	181
Total ..	418	198	2,320	2,144	567	641	294	310	3,599	3,293

NOTE.—It is reported that one of the Revenue Divisional Officers in *Central Coimbatore* has not furnished the return of offences dealt with by him.

The only variation calling for remark is the decrease under "injury by fire," which was due to an exceptionally favourable season. The action taken last year for the suppression of sandalwood thefts in *South Canara* appears to have been effective so that very few cases were reported in the current year. There was some increase under "illicit grazing" in the *Nilgiris*, attributed to the introduction of revised regulations for grazing and to the closure of the Wenlock Downs to free grazing. Several breaches of the new regulations were let off with warnings.

The number of offences prosecuted during the year was 658 and there were 140 pending from last year. Out of a total of 798 cases, 683 were disposed of during the year and 115 remained pending. The 683 prosecuted cases resulted in 624 convictions, 58 acquittals and one withdrawal; the percentage of conviction was 91 or about the same as in the previous year. The punishments inflicted by Magistrates are reported to be generally satisfactory. A most important case of theft of timber on a large scale in *South Malabar* in which a ranger was also suspected of having connived was prosecuted and resulted in the acquittal of the accused for want of evidence. An action is now pending against the ranger.

Offences Compounded.—The number of cases compounded and the amount of fees realized were 2,041 and Rs. 23,488, respectively, against 2,422 and Rs. 35,793 in the previous year. The decrease was mainly due to the suppression of sandalwood thefts already mentioned in *South Canara*. There was also some fall in the number of reported offences in unreserved lands in *Kollegal*, *North* and *Central Coimbatore.*

Working of the rules for compounding grazing offences.—The rules were followed in the *Nilgiris* and *Coimbatore* and are reported to have worked well. They were not adopted in *South Canara* and *Malabar* as there was no necessity.

Holding adjacent villages responsible for commission of offences in particular forests —North Malabar.—The ryots of one of the villages adjoining two blocks of forests were warned that the occurrences of fires would involve the closure of grazing areas. The notifications issued in previous years on the subject were in force in *Kollegal* and *North Coimbatore* and there was no occasion to enforce the penal conditions. *Central Coimbatore.*—There was a large number of illicit fellings in blocks II and III of Bolampatti and the adjoining villagers were warned of the closure of the forests to grazing. The warning is said to have brought down the number of offences. *South Coimbatore.*—Nothing was done on the ground that the forests are away from all villages but evidently they were not distant enough to prevent offences being committed. The system is not workable in *the Nilgiris* and is not required in *South Malabar.*

14. *Rewards—South Canara.*—Rewards amounting to Rs. 47 were granted to two deputy rangers and a guard for detecting thefts of timber and illicit shooting, Rs. 5 to a village potail for detecting a case of illicit transport of sandalwood and Rs. 20 to two tannahdars for reporting cases of illicit transport of timber; also Rs. 70 to informers. *The Nilgiris.*—The Game Association paid Rs. 20 to a ranger and Rs. 10 to two guards for detecting a case of poaching. *Kollegal.*—A Police head constable was rewarded Rs. 4 for his help in detecting a case of illicit removal of produce. *North Coimbatore.*—Rs. 29 to seven persons in two cases of removal of timber and fuel. *Central Coimbatore.*—Rs. 32 to three guards and one watcher. *South Coimbatore.*—Rs. 38 to six persons in two cases of illicit shooting.

(b) *Protection from Fire.*

15. *Special protection.*—The usual measures were adopted for the protection of forests. The year was specially a favourable one due to early rains. The area in which protection was attempted during the year was 1,139 square miles against 1,129 in the last year, the increase being due to extension of protection to additional areas chiefly in *South Canara* and *North Coimbatore*; the percentage of successful protection was 99·2 against 90·4 in the previous year. As in last year, the assistance of hill tribes in *South Coimbatore* was enlisted and the attempt was more successful; they earned a reward of Rs. 177 for their services. The expenditure per square mile of area attempted to be protected was Rs. 24–3–6 against Rs. 26–3–6 in the previous year.

16. *General protection.*—The area attempted was 2,482 square miles against 2,494 in the previous year; the decrease was due to transfers to special protection. The percentage of failure was 1·4 against 6·7 in the last year. The reporting of fire occurrences in these areas continued to be unsatisfactory.

17. The number and origin of fires during the year are given in appendix A. The number of fires decreased by 59 per cent. and the area burnt by 83 per cent.

The results in *North* and *South Coimbatore* and *Kollegal* leave room for much improvement. These divisions were responsible for 26,500 acres out of a total of 29,300 acres burnt. On the other hand, the valuable forests in *North Malabar* and Mudumalai in *the Nilgiris* which sufferred severely last year were successfully protected.

(*c*) *Protection against Cattle.*

18. Goats are not allowed to browse in forests. Fourteen per cent. of the total forest area was closed to all animals throughout the year and 75·9 per cent. open. Eighty-four square miles closed in the previous year as communal punishment in *Kollegal* were thrown open and 44 square miles in *North Coimbatore* consisting of areas under exploitation and the Minchiguli valley with a view to protection of timber therein were closed. The number of animals impounded compared with the figures of the previous year and the average of the past three years is given in appendix B. The number of impoundings increased from 8,933 to 9,338; the increase was chiefly in *the Nilgiris*, that in *Central Coimbatore* being ascribed to better supervision; there was also a marked decrease in *South Coimbatore* which is attributed to the transfer of certain areas to the management of panchayat.

(*d*) *Protection against injuries from natural causes.*

19. *Spike disease in sandal.*—A survey of the spike areas in the Bailore working circle, *Kollegal*, was carried out under the direction of the Conservator. From the margin of the attacked area and outside it a belt—100 yards in width—was demarcated throughout the working circle; and within the belt every sandal tree and plant was uprooted. These were naturally all healthy individuals. Within the belt all zizyphus, which carries a disease similar if not identical with spike, was also eradicated. The idea was to isolate the healthy sandal outside the belt from the possibility of infection through either root contact or the carriage of the disease by insects. The work was begun in February and completed by May. It is still too early to judge of the efficacy of this measure, but up to the time of writing there have been no instances of the disease crossing the line. If immunity is continued for the space of twelve months from the time of clearing there would be fair reason for hoping that this measure is at any rate a check upon the spread of spike, but at least two years of immunity should be obtained before it could be claimed that it stops the disease. In other areas of *Kollegal* and *North Coimbatore* spike has continued to spread throughout the working circles.

Lantana.—In May 1914 standing orders were issued for the preparation of working schemes where necessary, providing for three successive annual clearings of lantana commencing with the current coupes and compartments of areas under working plans. The orders have been carried out and schemes have been sanctioned in the *North Malabar* and *South Coimbatore* divisions. In other divisions, eleven acres were cleared in fuel coupes in *South Canara*, 118 acres in the plantations in Nilambur, and 65 acres of fuel coupes in *Central Coimbatore.*

Prickly-pear.—Orders for the preparation of similar working schemes for the eradication of prickly-pear have lately been issued. One hundred and forty acres have been cleared in four fuel coupes in *North Coimbatore*, and in *Central Coimbatore* there have been clearings in coupe VII of Odanthorai working circle and in the Kanjikoil reserve.

Teak defoliator.—Owing to timely rains the Nilambur plantations were almost free from attacks during ten months of the year; but in May and June 1915 extensive attacks were experienced in the young plantations of Nedungayam in the course of which six plantations were almost completely defoliated. The attack was also fairly

severe in several plantations in Nilambur range. Experiments were tried with two Andre Maire traps but one was soon destroyed by elephants and the other was probably not correctly adjusted as it failed to attract moths.

4. Sylviculture.

(a) *Natural Reproduction.*

20. The seeding of the large bamboo (*Bambusa arundinacea*) is spreading. The final seeding commenced in the plateau tracts from the north about two years ago and spread southwards. Practically the whole of the Wynad in *Malabar* and *Nilgiris* has seeded as has *Kollegal* and *North Coimbatore* and the lower slopes of the *Nilgiris* in *Central Coimbatore*. Upon the ghats in *South Canara* and *Malabar* all the upper slopes have gone, and sporadic seeding is extending to the heavy bamboo jungles at the foot. Partial seeding has been going on down here for two or three years. It is impossible to say, although it is probable, that a general seeding will follow. If so it will be a serious thing later for the timber floating industry and will interfere for some years with any bamboo pulping schemes. As regards other species, the germination of *Xylia dolabriformis* on laterite tracts and of *Hopea parviflora* in the Canara valleys was exceptionally promising as was that of Rosewood and *Pterocarpus Marsupium* in the Minchiguli valley, *North Coimbatore*. And on the whole the year was generally more favourable than the preceding one.

(b) *Artificial reproduction.*

21. *Regular plantations.—North Malabar.*—Two acres were added to the Begur teak plantation. In the *Nilgiris* the experimental plantations of timber-yielding *Eucalyptus* were maintained but nothing else is reported about them. In *South Coimbatore* there was no extension of the Karianshola plantations but the teak, rosewood and vengai plants put out to replace casualties in the rains of 1914 survived the hot weather owing to the favourable season. The regeneration operations prescribed by working plan in Punachi and the fuel working circles were unfortunately failures. In *Central Coimbatore* 13,398 pits were sown and 7,000 basket plants were put out in various fuel working circles, again without success. There has been a consistent record of non-success with these operations in *Central Coimbatore* owing probably to their unsuitability to such dry forests and orders will be issued to discontinue them.

Taungyas—South Canara.—In Kasaragod range 41 acres and 41 acres in Coondapur were given out for Kumri to forest labour but results are not reported. *North Malabar.*—In Kanoth the Kurichiyars were given 210 acres, whilst in Begur 65 acres were granted to Kurumbers. Of this only 9 acres were felled and sown with teak, but here again results have not been reported. Attempts are to be made to settle Kurumbers on Kumries in the Mudumalai range, the *Nilgiris.*

Cultural operations—South Canara.—In all ranges pit and broadcast sowings were carried out by subordinates with some success in the case of teak, *Hopea parviflora* and *Terminalia tomentosa*. *North Malabar.*—The group system of teak sowing in pits, prescribed in the Begur and Chedleth working plans, was carried out on a considerable scale. Forty-five per cent. of success is reported in Chedleth. In the fuel coupes of Kanoth 3,600 teak seedlings were planted. In *South Malabar* an attempt is to be made to underplant the teak with *Hopea parviflora*, rosewood, *Artocarpus hirsuta* and other species and a nursery was opened towards the end of the year. *North Coimbatore.*—Some basket planting of rosewood and vengai at Geddesal last year has turned out successfully. A good deal of dibbling of sandal and other species was attempted but is reported as only partially successful. In *South Coimbatore* attempts to fill up blanks in fuel coupes were again unsuccessful and will now be discontinued. In *Kollegal* about 500 acres were dibbled with sandal under bushes towards the end of the year. The results are not yet available. Four hundred lbs. of *Acacia arabica* seed was sown in Dodda Induvadi reserve and has germinated profusely.

(c) Operations for the improvement of the growing stock.

22. *South Canara.*—Light improvement fellings with creeper cutting were carried out in 4,700 acres at a cost of Rs. 724 and as a result it is reported that seedlings of valuable species are showing up most satisfactorily. In *North Malabar* creeper cutting and girdling were done in the felled areas of the previous year. *South Malabar.*—Five hundred and ninety acres of teak plantations in Nilambur range and 216 acres in Amarampalam range were thinned, accompanied by creeper cutting and weeding. In the *Nilgiris* marking for thinnings was made in three plantations. In *North Coimbatore* all the sandal coupes of the year were cleared of creepers and all useless species were girdled in the fuel coupes. In *Kollegal* soft woods were girdled in the Gundal and Araipalayam coupes. Nothing is reported from *South* and *Central Coimbatore*.

(d) Experiments.

23. *Rubber.*—At Tannir in *South Canara* is not doing well; nor in *South Malabar*.

Swietenia Mahagoni.—The experimental trees at Panayangote (*South Malabar*) are flourishing, also those in the office compound. Those planted as avenue trees in Karumpoya are keeping good condition.

Swietenia macrophylla.—These are doing well everywhere at Nilambur.

Bamboos.—Two-thousand seeded bamboos were cut and floated to Beypore in order to ascertain the cost of floatage of dry bamboo in connection with Mr. Nelson's bamboo pulp scheme. Six-thousand green bamboos were cut under three methods to test the former estimates of felling and dragging to river side and at the same time to ascertain the effect of different felling methods on regeneration, and separate registers have been opened for all works. The total cost to end of June was Rs. 2,134. The cost of floatage has far exceeded the estimate, probably for the reason that it was commenced too late in the year (January or February) and the journey appears to have taken several months.

Eucalyptus.—The 11 varieties planted in the Arboretum block, Cairnhill, the *Nilgiris*, show very slow growth.

5. Exploitation.

(a) System of Management.

24. The various sylvicultural systems in force over the areas for which working plans have been sanctioned are summarised below :—

Sylvicultural system.	Area in square miles.	Percentage of total area under each sylvicultural system.
Method of clear fellings by compartments	31	1·92
Selection method	346	21·38
Simple coppice	4	·25
Coppice with standards	338	20·89
Method of improvement fellings	202	12·48
Forests for which working plans have been prepared but not subjected to any definite system of working ...	697	43·08
Total ...	1,618	100

(i) Major Forest Produce.

(1) *Clear or regeneration fellings*—Nil.

25. Awaiting the first felling in the Nilambur teak plantations.

(2) *Selection fellings.*

26. *South Canara.*—Selection fellings were carried out over a portion of coupe VI of Madibare timber working circle and 160 mature trees in Someshwar coupe X were sold standing. *North Malabar.*—Three hundred and fourteen acres in coupe XVIII of Begur and 486 acres in coupe II of Chedleth were felled. *The Nilgiris.*—Sandal-wood yielded 500 maunds in Sigur range. Owing to the appearance of "spike"

disease the selection fellings in the sandal working circles in *Kollegal* and *North Coimbatore* have been suspended. *Kollegal.*—Spiked and dead sandal trees were extracted from portions of coupe VI of Madeswaranmalai and coupes I, III and V of Bailur, from certain areas outside these two working circles and from coupes I to V of Gundal fuel working circle; the total number of trees extracted was 5,381. *North Coimbatore.*—Seven thousand one hundred and twenty-two spiked and dead sandalwood trees were removed over an area of 8,704 acres. *South Coimbatore.*—Coupe XXI of Tekadi leased forest (400 acres) and coupe VIII of Punachi working circle (71 acres) were felled.

(3) *Simple coppice.*

27. Thirty-eight acres of the Eucalyptus plantations in Ootacamund and Coonoor were coppiced for the supply of the public and the Wellington Cantonment.

(4) *Coppice with standards.*

28. In *South Canara* fifteen fuel coupes covering about 532 acres in Coondapur and Sankaranarayana and portions of two coupes in Puttur and Kasaragod were cut; as were 14 acres in Udipi for supplying sandalwood oil stills. *North Malabar.*—Twenty acres in Kanoth were felled for the fuel supply of the town of Tellicherry. In *North Coimbatore* 12 coupes—988 acres—were worked for fuel supply and 95 acres for drag poles and agricultural implements. In *South Coimbatore* 8 coupes of 335 acres, in *Central Coimbatore* 23 coupes of 1,631 acres, and in *Kollegal* portions of 4 coupes covering 223 acres were felled for the fuel supply of neighbouring towns and villages.

(5) *Improvement fellings.*

29. *South Canara.*—Coupe 3 of Nerankimale was worked for the fuel supply of Mangalore. In *South Malabar* the thinnings in the teak plantations yielded 12,181 trees and saplings. Five hundred acres in compartments 2 and 3 of block I, Mudumalai, in *the Nilgiris* yielded 44,241 cubic feet of teak and 4,496 cubic feet of other species as well as 172 teak poles. In *South Coimbatore* coupes VII and VIII of Punachi and coupe 1 of compartment II, Mount Stuart, were worked for improvement fellings.

(6) *Unregulated fellings.*

30. *South Canara.*—Firewood required for working 75 stills was removed from unreserved lands. Timber was also removed from unreserved lands on payment of seigniorage. In *South Malabar*, 362 dead and windblown trees were removed from Nellikutta and new Amarampalam forests on payment of a fixed value. In the *Nilgiris*, the demand for small timber, fuel, etc., was met as usual by issue of permits. In *North Coimbatore*, 25,137 cubic feet of timber and 13,919 cubic feet of fuel were removed on permits from unreserved lands.

(ii) Minor Forest Produce.

(1) *Bamboos.*

31. Ten blocks in *North Coimbatore* covering 22,376 acres, eleven blocks of 3,413 acres in *Central Coimbatore* and two blocks as well as seeded bamboos in three blocks in *South Coimbatore* (areas not reported) were leased out. Removals on permits were allowed in *North Malabar*, the *Nilgiris* and *Kollegal* to meet local demands, from the natural forests of *South Malabar* for floating timber by purchasers and from unreserved lands in *South Canara.* Bamboos were also extracted departmentally from Kanoth forest in *North Malabar* for supply to Tellicherry town.

(2) *Miscellaneous Produce.*

32. Minor products of importance were generally leased out with the following exceptions:—*By Departmental Agency*—Manufacture of catechu in *South Canara*, collection in Mudumalai and Tunakadavu ranges in the *Nilgiris* and *South Coimbatore* respectively and all produce except tamarind, tanin barks, soapnuts, pungam seeds and date leaves from reserved forests in *North Coimbatore* and *Kollegal* divisions

(3) *Extraction of fodder grass.*

33. Fodder grass was removed on permits in *South Malabar* and *Coimbatore*. The concession of free removal of grass is not wanted in *Malabar* as the demand is met from private forests and unreserved lands. In other districts there was no necessity for it. The free removal of thatching grass from reserved forests in *South Canara* and by the Todas of the plateau and the Chetties of Mudumalai in the *Nilgiris* was continued.

34. (4) *Hay-making.*—Nil.

(5) *Grazing.*

35. Goat browsing is entirely prohibited. The forests of *South Malabar* are closed to grazing. Elsewhere grazing was, as usual, controlled by issue of permits. During the year, the block system of grazing by which permits are applicable to specified areas instead of to all forests was introduced in the *Nilgiris*. Free grazing on the Wenlock Downs was stopped as the damage caused by cattle lessened the value of the Downs as a recreation ground. The number of cattle licensed to graze on payment was 399,437 against 373,476 in the previous year.

(*b*) *Agency of Exploitation.*

(i) Departmental Agency.

36. *Major produce—South Canara.*—Felling in one timber; and for part of the year nine fuel coupes after which all fuel coupes were sold standing. Extraction of stumps of sandalwood trees stolen from unreserved lands; also some light improvement fellings. *North Malabar.*—Felling of 87,479 cubic feet of timber in Begur coupe XVIII and 16,400 cubic feet of fuel in Kanoth reserved forest. *South Malabar.*—Thinnings of teak poles and saplings in plantations. Spokes and felloes were manufactured from the top ends of teak saplings. *The Nilgiris.*—Improvement fellings in Mudumalai and extraction of sandalwood in Sigur range. Sandal fellings in *North Coimbatore* and *Kollegal*. *Central Coimbatore.*—The rectification of contractor's faults in some fuel coupes. *South Coimbatore.*—Selection fellings in Tekadi leased forest and improvement fellings in Punachi and Mount Stuart working circles and transport of timber from the leased forests to depots.

Minor produce.—The details are mentioned in paragraphs 31 and 32 *supra.*

37. *Disposal of produce at the edge of the forests.*—In *South Canara* fuel was sold on a small scale at Mulliar reserved forest and in some of the coupes; 35 chowks of fuel obtained from the improvement fellings in Pilarkan and about 732 cubic feet and 651 cubic feet of timber in Hulimeshepare and Parappa were sold at the edge of the forests. In *South Malabar*, there has been a great improvement in this respect. No less than Rs. 42,150 worth of thinnings were for the first time sold on plantation boundaries instead of being dragged and floated as hitherto to Beypore for sale. Some fuel felled departmentally in *Kollegal* and a few drag poles in *North Coimbatore* were sold in the forest. In *South Coimbatore* the timber felled in Punachi coupe was disposed of in the same way.

(ii) By Purchasers.

38. One timber and all the fuel coupes in *South Canara*, the timber selection fellings in compartments II and III of Chedleth in *North Malabar*, Araipalayam fuel coupe VII in *Kollegal* and all the fuel coupes in *North*, *Central* and *South Coimbatore* were sold standing to contractors. In the *Nilgiris* 2,361 cubic feet of standing timber in reserved forests and 42 cubic feet of unclassified timber from the Mudumalai working circle were so removed. The felling and removal of about 400 windblown and uprooted trees in Nellikutta natural forest in *South Malabar* were given on contract. Also the unregulated fellings and the exploitation of bamboos and miscellaneous produce referred to in paragraphs 30, 31 and 32 *supra.*

(iii) & (iv) BY RIGHT-HOLDERS AND UNDER PRIVILEGES AND FREE GRANTS.

39. The quantity and estimated value of produce removed by right-holders and free grantees are given in the following statement:—

—	Timber.		Fuel.		Bamboos.		Grass and grazing.	Other minor produce.	Total.
	Cubic feet.	Value.	Cubic feet.	Value.	Number.	Value.	Value.	Value.	Value.
		RS.		RS.		RS.	RS.	RS.	RS.
Right-holders	36,175	14,470	..	..	..	..	780	..	15,250
Free grantees .. .	3,761	964	340	6	8,920	67	91	179	1,307
Total ..	39,936	15,434	340	6	8,920	67	871	179	16,557

The estimated value of produce and grazing enjoyed by right-holders and removed by free grantees was Rs. 15,250 and Rs. 1,307 respectively against Rs. 20,474 and Rs. 2,195 in the previous year. The Badagas in the *Nilgiris* continued to remove fuel on payment of a nominal fee of Re. 1 per annum per house. In *South Canara*, free grants amounting to Rs. 569 were made for churches, temples and other religious institutions and Rs. 160 to works of public utility. The grants made in other districts were chiefly for rebuilding houses destroyed by fire and produce was usually removed from unreserved lands.

(c) Outturn and sources of forest produce.

40. The outturn of produce collected by different agencies as compared with that of the previous year is given in the following abstract:—

Agency of exploitation.	Timber including sandalwood in cubic feet.		Fuel in cubic feet.		Bamboos in number.		Minor produce including grass and grazing in rupees.	
	1913-14.	1914-15.	1913-14.	1914-15.	1913-14.	1914-15.	1913-14.	1914-15.
By Government Agency ..	256,604	437,121	1,634,965	640,149	158,545	98,757	28,229	24,151
By purchasers	370,524	468,886	2,532,559	3,937,306	4,788,599	7,303,240	144,205	147,014
By right holders	49,077	36,175	..	..	1,210	..	856	780
By free-grantees	8,390	3,761	3,415	340	13,405	8,920	470	270
Total ..	684,595	945,943	4,170,939	4,577,795	4,961,759	7,410,917	173,760	172,215

By Departmental Agency—Major produce.—The increase under "timber" was in *North Malabar*, the result of the exploitation of a larger area in the Begur working circle, in *South Malabar* to a larger yield from thinnings and windblown trees in teak plantations and in the *Nilgiris* to the fact that in the previous year the improvement fellings in Mudumalai working circle were stopped on account of the accumulation of stock. The extension of the contract system in *South Canara*, *Kollegal*, *North* and *Central Coimbatore* divisions, the felling of poorer areas in *South Coimbatore* and a somewhat decreased demand for firewood by the Military Department in the *Nilgiris* chiefly accounted for the decrease under 'fuel'. *Minor produce.*—"Bamboos"—The decrease was mainly in *South Canara* due to the sale of coupes standing to contractors. *Other produce.*—The total outturn decreased from 153 to 96 tons; the decrease was due chiefly to a poor crop of gallnuts, honey, etc., in *North Coimbatore* and to the stoppage of hay-making operations.

By Purchasers—"Major produce."—The increase under "timber" was due mainly to extensive sales of trees on darkhast lands chiefly in *South Canara* while that under "fuel", to replacement of departmental working by contractors. *Minor produce—"Bamboos"*—The increase was chiefly in *South Canara* and was due to the sale of coupes standing and to the working of larger areas in *North* and *Central Coimbatore*. *Other produce.*—There was an increase under "grazing collection" which is explained in Chapter III and a decrease under "other produce" which is distributed over all the districts and calls for no special remarks.

CHAPTER III.—FINANCIAL RESULTS.

41. The financial results of the year compared with those of the previous year and with the average of the five preceding years are tabulated below :—

——	1914-1915.	1913-1914.	Average for the preceding five years.
	RS.	RS.	RS.
Revenue	* 9,12,063	8,41,735	7,77,773
Expenditure—			
Refunds	6,208	†7,189	4,174
A. Conservancy and Works ..	5,59,205	4,18,683	4,46,290
B. Establishments	3,65,862	3,66,169	3,45,700
Total expenditnre ..	9,31,275	7 92,041	7,96,164
Net ..	— 19,212	+ 49,694	— 18,391

* Excludes Rs. 25 relating to the Southern Circle.
† Excludes Rs. 3,588 relating to the Bombay Presidency.

The gross receipts were the highest on record for the Circle and exceeded those of the last year and the average of the preceding five years by 8·4 and 17·3 per cent. respectively. The net results also would have beaten any previous record but for an extraordinary charge of Rs. 1,74,849 incurred for the acquisition of Mudumalai and Kumbarakolli leased forests in the *Nilgiris* Sixty per cent. of the receipts was from major produce, 9 per cent. from grass and grazing, 12 per cent. from minor produce including bamboos and 19 per cent. from miscellaneous sources. Of the expenditure, 24 per cent. was spent on exploitation of the forests, 50 per cent. on their upkeep and improvement and 26 per cent. on miscellaneous items. The estimated value of timber and other produce in sale depots at the close of the year was Rs. 17,469 against Rs. 89,709 at its commencement. The revenue outstanding was Rs. 73,663 of which only Rs. 14,030 fell due within the year.

The important variations between the actuals of the year and those of the previous year are explained below :—

RECEIPTS.

(i) *By Departmental Agency.*

Timber + 49,875. The increase was in *North Malabar* due to larger fellings and in *South Malabar* to a larger outturn of plantation teak logs and to better prices obtained during the year; this increase was partly counterbalanced by a large decrease in *South Coimbatore* where transport of timber to the plains was brought to a stop since December 1914 owing to the road from Topslip having fallen in disrepair.

Fuel — 16,229. Due chiefly to extension of contract system.

Bamboos —3,800. Due to sale of bamboo coupes to contractors in *South Canara* to a smaller number of bamboos used for floating timber in *South Malabar* and to want of demand in *Kollegal.*

Sandalwood + 45,275. Due to extraction of sandalwood from unreserved lands in *South Canara* and to a larger outturn in *Kollegal* and *North Coimbatore.*

Minor produce + 2,136. The increase was due chiefly to sale of last year's stock in *Kollegal* and *North Coimbatore* and to better prices obtained for gallnuts in the former district.

(ii) *By Purchasers.*

Timber + 2,308. Due chiefly to increased revenue by sale of trees on darkhast lands.

Fuel + 4,891. Due to increased receipts from unreserved lands in *South Canara* and to better prices obtained for fuel coupes in *North* and *Central Coimbatore.*

Bamboos —7,964. Due to non-realization of lease amounts in *North Coimbatore* before the close of the year.

Grazing + 3,722. Due to introduction of the block system in the *Nilgiris*, to a larger number of foreign cattle licensed in *Kollegal* and to increased demand for fodder grass in *North Coimbatore.*

Minor produce —3,322. Due chiefly to poor crop.

(iii) *Miscellaneous* (*including confiscated drift and waifwood*).

—6,564. Due chiefly to abnormal receipts during 1913–14 in *South Canara* as a result of the campaign against systematic sandalwood thefts.

EXPENDITURE.

The increase of Rs. 1,40,522 under '*A. Conservancy and Works*' was due chiefly to the reason mentioned in the beginning of this Chapter. There was a small decrease of Rs. 307 under '*B. Establishments*' which calls for no special remarks.

CHAPTER IV.—ADMINISTRATION.

42. The charge of the Circle was held by Mr. C. D. McCarthy throughout the year.

District and Range charges.—There were no alterations during the year.

Establishment.—The inadequacy of trained rangers continues to be keenly felt. At present no less than eight range charges out of a total of 31 are in the hands of untrained deputy rangers. This state of things is not confined to this Circle and it was unanimously decided at the last Conference of Conservators to recommend an increase of the present proportion of Government students to be deputed for training to the Forest College.

43. *Work of superior officers.*—Extracts of Collectors' remarks are appended—*South Canara*—By Mr. A. J. Curgenven—" M.R.Ry. V. Raman Menon and Mr. Hart have discharged thei duties satisfactorily." *Malabar—By Mr. Innes—North*—"Mr. Littlewood worked hard and camped well, and such reports as I have received from him have showed care, industry and intelligence." *South*—" Mr. Bourne's work maintained its usual high standard. I have been much impressed in all reports I get from him with the thoroughness with which they have been prepared. *The Nilgiris—By Mr. Young*—" The work of both officers (Messrs. S. Cox and R. D. Richmond) was all that could be desired. Mr. Habibulla Sahib did his work conscientiously and on the whole well. His health was however not always good." *Coimbatore—By Mr. A. R. Cumming—Kollegâl*—" M.R.Ry. P. Venkataramanan has worked with keenness and industry but his relations with the local Revenue officials have not been harmonious and his touring has not been as thorough as it should have been." *North*—" Mr. Wood's work throughout the year was characterized by marked efficiency and thoroughness. His intimate personal knowledge of the conditions of the forests in his division has been of the greatest value to me. Mr. Woodhouse Adolphus has still to prove his qualifications for the post he holds." *Central.* " The work of the superior staff was satisfactory." The officers in the division were M.R.Ry. Chengappa and Mr. Hodgson for a few days and Mr. Habibulla Sahib. *South.* " Mr. Fischer has worked zealously and well. Mr. J. H. Longrigg was posted to the charge of the Tunakadavu range in January 1915 and has taken a keen interest of the work in the range. Mr. Robinson has shown himself diligent and eager to learn."

44. *Executive establishment.*—The work of rangers is generaly well reported on. L. S. Janes, E. B. Ramachandra Rao, A. R. Narasimha Ayyangar and A. Nicholas are singled out for special mention. One ranger was suspended and is to be prosecuted criminally in connection with theft of timber, one was reduced temporarily for bad work and one of the directly appointed probationary rangers was reduced to deputy ranger and subsequently resigned. The work of deputy rangers was fairly satisfactory. One deputy ranger was dismissed and the probation of three was terminated.

45. *Protective staff.*—The conduct of foresters with a few exceptions was not satisfactory. No improvement among the lower ranks of foresters and guards is reported. *Punishments*—One forester was dismissed, the services of one were dispensed with, six foresters were reduced and two suspended. *Guards.*—Dismissals 8, removals from service 22, suspensions 29 and reductions 7.

46. *Ministerial establishment.*—The post of temporary draftsman in the Circle office and in the Divisional offices of *North* and *South Coimbatore*, *North Malabar* and *South Canara* was made permanent. The establishment is reported to have

worked on the whole satisfactorily. The head clerks of *South Malabar*, *the Nilgiris*, *North*, *Central* and *South Coimbatore* are specially mentioned for good work. *Punishments —Divisional offices.*—One clerk and the draftsman in *South Coimbatore* were reduced temporarily *Range offices*:—One clerk in *South Malabar* was dismissed, the services of one in *Central Coimbatore* and three in *South Coimbatore* were dispensed with ; one in *Kollegal* and two in *Central Coimbatore* were suspended. The range establishment is reported to be wanting inefficiency. The manager and staff in the Conservator's office worked with zeal and efficiency.

47. *Health of the establishment and casualties.*—The health of the establishment was on the whole good in *North Coimbatore*, fair in *South Canara* except at foot of the ghats, fairly satisfactory in *Kollegal* and bad as usual elsewhere except on the *Nilgiri* plateau. *Deaths* —One in each of the *Nilgiris*, *Kollegal*, *North* and *South Coimbatore*. A large number of subordinates have had to be granted leave on medical certificate. At the end of the year five rangers were absent from duty on this account.

48. *Relations between Revenue and Forest officers.*—The relations continued to be cordial with the exception of the instance in *Kollegal* referrred to in paragraph 43 *supra*. The District Forest Officer, *South Coimbatore*, and all Range officers in *South Canara*, one Range officer in *Central* and *South Coimbatore* attended the jamabandi. Such attendance is not required in *Malabar* ; in the *Nilgiris* the officers are reported to have been in constant touch with each other. No complaints of importance were brought to the notice of the jamabandi officers.

49. *Service books.*—Maintained and verified up to the close of the financial year except in the *Nilgiris* where they were verified to the close of the calendar year.

50. *Tours of the Forest Member.*—The Hon'ble Mr. R. C. C. Carr inspected the plantations in *South Malabar*.

51. *Conservator's inspection.*—All the District Forest offices were inspected with generally satisfactory results except as regards *Kollegal* and *Central Coimbatore*. The disorder in the former was however due to the gross inefficiency of two Range officers. The forests of *North* and *South Malabar*, *the Nilgiris*, *Kollegal* and *South Coimbatore* were also inspected. The total number of days spent in camp was 187.

52. *Touring of District Forest officers.*—With the exception of the District Forest officers, *South Malabar*, *the Nilgiris*, *Kollegal* and *Central Coimbatore* the others spent in camp more than the minimum period of touring prescribed. The short touring in *South Malabar* is ascribed to the fact that the greater part of the area under working was within the five-mile radius, in the *Nilgiris* to Mr. Cox having disposed of his camp kit in anticipation of his taking furlough and to his stay at Head-quarters for a month on account of an operation to his hand. The apparent deficiency in *Central Coimbatore* and *Kollegal* was due to the charge of these divisions being held by neighbouring District Forest officers for 8 and 5 months respectively.

53. *Inspection of Range offices.*—All Range offices except one in each of *North* and *South Malabar* and the *Nilgiris* were inspected and found generally in good order with five exceptions. With the exception of the sale depots at Beypore in *South Malabar* and at Kargudi in the *Nilgiris*, all were inspected. The Kargudi depot was not inspected for want of time and the stock at Beypore was found to be correct at the time of sale so that no inspection was necessary. One depot keeper in *South Coimbatore* was suspended and the services of another were dispensed with.

54. *Audit of accounts of District Forest offices.*—The accounts of all the offices except *South Canara*, *Central* and *South Coimbatore* were audited by the Local Fund Audit establishment. The Assistant Accountant-General inspected the accounts of the *Nilgiris* and *Central Coimbatore*. The results are reported to be satisfactory.

55. *The Madras Forest College, Coimbatore.*—Four deputy rangers passed the College with the higher standard certificates, one of whom was awarded a prize for field engineering. Three rangers, one directly appointed probationary ranger and one deputy ranger were deputed for training for the 1914–16 course.

56. *Imperial Forest Research Institute and College.*—One probationer for the Provincial Service was under preliminary training in *South Canara* and deputed to the College.

57. *The Vernacular Training School.*—The year's session was held in *Central Coimbatore.* Students from the *Nilgiris*, *Kollegal* and *South Coimbatore* also were deputed for training. The strength of the school at the start was 29 of whom one deserted subsequently. The course was not completed until after the close of the year.

CHAPTER V.—GENERAL.

58. *Realization of revenue from the usufruct of toddy-yielding trees, etc.*—Revenue from this source was realized only in *South Canara* and *Kollegal*—Rs. 1,531 and Rs. 22 respectively, against Rs. 2,152 and Rs. 30 in the previous year.

59. *Measures adopted to encourage the growth of manure-leaf-yielding trees and shrubs.*—No action was found necessary in this direction as the demand was met in some districts from private forests and patta and unreserved lands and in others such measures were not required.

60. *Supply of forest produce to meet the wants of the people—South Canara.*—The concession of free removal of thatching grass, used also at times as fodder, and of grass and leaves from a portion of the Baindur reserved forest was continued. No abuse of this concession was brought to notice. Timber and fuel were retailed in certain depots. *Malabar.*—Owing to ample supplies in private and unreserved lands there is practically no demand upon the reserves. *The Nilgiris.*—The removal of small timber, fuel, bamboos and other produce on permits was as usual allowed. The Badagas continued to enjoy the concession of obtaining their annual supply of fuel on a nominal payment of Re. 1 per house, and the public of Coonoor and Ootacamund were supplied with firewood from the plantations. Firewood and charcoal were also sold in retail in depots. *Kollegal.*—The supply to the public of small timber, agricultural implements and bamboos through the agency of monigars and permit-issuing officers was continued; but the issues were small as the people are able to get almost all their requirements from unreserved and patta lands. There is no demand for fuel from the reserves except for the supply of Kollegal town. *North Coimbatore.*—The supply of fuel and bamboos was made through the agency of contractors The demand for small timber and agricultural implements was met by retail sales and periodical auctions at forest depots. But very little business was done owing to the supplies available in unreserved lands. The supply of forest produce in *Central* and *South Coimbatore* was met from contractors' coupes of which there are large numbers. The removal of brushwood in head loads from coupes under working was continued in all the *Coimbatores.*

Forest Committee's Report.

61 (*a*) *Classification of forests.*—The classification of reserved forests in the circle was completed. Four small reserves in *South Canara* and *Kollegal* were disafforested during the year.

(*b*) *Management by village panchayats.*—There is a very small area of class V forests in this circle. Except for one in *Kollegal* and two in *South Canara*, they are all small isolated blocks in the Erode and Dhārāpuram taluks. Out of 9 in *Central* and 7 in *South Coimbatore*, 7 and 5 respectively have been handed over to panchayats. The amount of revenue assessed on these forests is given below :—

	Name of reserve.	Area in acres.	Amount of grazing revenue fixed.
			RS.
Central Coimbatore	Ellapalayam	196·08	56
	Sullipalayam	445·70	160
	Sinnaveerasangali	934·18	260
	Virumandampalayam	707·14	192
	Arachalur (plains)	1,686 29	372
	Tambikalayam	273·69	21
	Pandiyampalayam (portion)	180·00	13
South Coimbatore	Ganapati	414·31	150 (for Ganapati to Do. II bit)
	Talavoipatnam	323·57	
	Sennakalpalayam I bit	103·53	
	Do. II bit	101·06	
	Utiyur	932·07	35

In *Central and South Coimbatore* the panchayats were found to be admitting a much larger number of cattle than the possibility. In *South Coimbatore* the management is otherwise pronounced to be satisfactory in the case of the first four areas. One or two panchayats are reported to have started works of improvement, such as clearing prickly-pear, repairing wells and fencing. Utiyur forest was handed over to a panchayat during the latter part of the year. A feature of panchayat management is the immediate raising of the grazing fee. The old Government fee of 3 annas has been raised in some cases to Re. 1 and even Rs. 1-8-0 per head Chembugudde reserved forest and two small pieces of unreserved lands near Udipi and Karkal in *South Canara* were also managed by panchayat. The working of the panchayat has not been reported on.

(*c*) *Opening of small coupes for rural supply wherever an effective demand exists or can be stimulated into existence.*—There is no demand for such coupes in this circle as coupes sold to contractors, private forests and unreserved lands meet the requirements. A trial coupe was opened in *North Coimbatore* and the fuel felled remained unsold and had to be written off. Another coupe was advertised but there were no offers.

(*d*) *Measures adopted for improving the water-supply in Government grazing grounds and the facilities for grazing and pasturage.*—In *Kollegal* one well in the Chikkailur reserved forest and another in Madeswaranmalai were repaired by the graziers and subordinates free of cost. In *North Coimbatore* the tank at Kakkarai in the Gutialattur reserved forest was repaired at a cost of Rs. 880. In *South Coimbatore*, no advance was made in this direction owing to changes among subordinates. No steps are necessary in *South Canara*, *Malabar* and *the Nilgiris.*

(*e*) *System of patrol by a gang of subordinates*—The system is believed to have been introduced in *South Canara*, certain parts of the *Nilgiris* and in *Central* and *South Coimbatore*. But no reports have been received except from *South Coimbatore* which states that the staff is too small to make the system effective. I have, however, discussed the subject with several District Forest officers and agree in the opinion expressed by them, viz., that, with the present paucity of the class which should hold control of the patrol section (Deputy Rangers and Foresters), it is impossible to constitute the sections without either leaving a considerable portion of the forests without inspection, or making them so large that inspection at one end would leave the rest of the section unprotected for too long a period.

62. *Grant of cowles for the formation of casuarina plantations in sandy areas.*—Nil.

Rules under the Forest Act.

63. (*a*) *Timber transit rules.*—The rules are reported to have worked satisfactorily in *South Canara*, *North Malabar* and the four divisions of *Coimbatore*. In *South Malabar* the registration of property marks alone was in force.

(*b*) *Rules under section 26 of the Forest Act.*—The rules worked satisfactorily and the privileges conferred by them were availed of by the public. There was no change in the area of unreserved lands under the control of the department.

(*c*) *Other rules.*—Sandalwood transit rules referred to in the previous report were sanctioned and brought into force in *South Canara*. In the *Nilgiris* the shooting rules remained unaltered and the fishing rules were re-notified for one more year with slight modifications regarding trout and masheer fishing.

64. *Hill tribes.*—The co-operation of the hill tribes in the matter of providing labour for departmental works, collecting miscellaneous products and planting blank areas has progressed. They were granted leases of lands free or on nominal rent in all districts except *South Malabar* where a proposal to lease out 32 acres in unreserved lands to some mulcer watchers was under consideration. Eighty-two acres were leased out to Kudubies and Mahratties in *South Canara* for Kumri cultivation, six acres in *North Malabar* to Kurichiyars for ponam cultivation, 1,229 acres free of rent to Sholagars in *North Coimbatore* and 795 acres to the Irulars in *Central Coimbatore*. There were no fresh leases to the Sholagars in *Kollegal*. The existing free leases to hill men in *South Coimbatore* were continued. These hill men were also employed on fire-protection work on the system of grant of rewards on results. In the *Nilgiris*

Kurumbers in Mudumalai and Benne forests were employed as elephant attendants and on fire protection. It is hoped to settle more Kurumbers in the *North Malabar* and Mudumalai forests.

65. *Cultivation in reserved forests.*—Tenant-at-will leases covering 21 acres were continued in *South Canara* on an annual rent of Rs. 24. In *North Malabar* 210 and 478 acres for ponam and wet cultivations respectively at an annual rent of Rs. 2-8-0 per acre were leased out. In *South Malabar* the lease of 4 acres in the old Amarampalam reserved forest for paddy cultivation was renewed for one year on an annual rent of Rs. 10. Another lease of 120 acres in the new Amarampalam reserved forest which was renewed last year for two years is still in force. In the *Nilgiris* the Irulars on the eastern and southern slopes were allowed to cultivate lands in ten places covering 151 acres. It is to be feared that there have been several unauthorised clearings and the condition that these men should provide labour for the department has not been enforced. The leases in *Kollegal* and *North Coimbatore* for cultivation on payment of rent continued. Fresh leases for cultivation on the Anamalais in *South Coimbatore* were granted to planters during the year. The location of residential settlement on the Anamalais in the midst of the planting area was sanctioned and about 20 acres of forests were cleared of growth for the purpose.

Live and dead stock.

66. (*a*) *Elephants.*—Twenty-four elephants were captured during the year and there were two births; seventeen were sold for Rs. 37,000, one was killed by a wild tusker, three died and one was transferred to Upper Gōdāvari; the number remaining at the close of the year was 119. Of the deaths one was a new capture, another was old and the third was suffering from diarrhœa due to irritation caused by bots. The condition of the other animals was good.

(*b*) *Bullocks and buffaloes.*—Eighteen bullocks were purchased during the year. The casualties of the year comprised six deaths (four on account of old age, one due to snake-bite and one killed by a tiger), five sold as unfit for forest work and twelve condemned and destroyed. The number of bullocks that remained at the close of the year was 64. Of the 51 buffaloes that remained at the commencement of the year, six died from anthrax, six from other disease and one was sold leaving a balance of 38.

(*c*) *Veterinary establishment.*—Mr. F. X. Mascarenhas, Special Veterinary Inspector, inspected the live-stock in the different districts and attended to their ailments. There was a sudden outbreak of anthrax at Nilambur in an area where elephants and buffaloes were at work. It was due to the prompt and capable action of the Special Veterinary Inspector that there was no loss in the elephant stud. The Assistant Veterinary Inspector M.R.Ry. S. N. Tammayya who was in charge of the live-stock in *South Coimbatore* is reported to be a capable and zealous officer and to have proved himself of great service.

(*d*) *Inventory of valuable stock.*—Stock registers are reported to have been maintained and verified at inspections. The value of the live-stock and stores at the close of the year was Rs. 3,27,757 and Rs. 3,63,503, respectively.

67. *Rain-gauges.*—The rain-gauges were maintained and readings recorded in all districts. There was no improvement in recording the readings in *South Canara.*

68. *The Gass Forest Museum and the garden.*—The control of the museum was transferred to the Principal of the Madras Forest College in January 1915 and the exhibits were accordingly removed to the new building. The garden in the compound of the Conservator's office was maintained as usual and Rs. 160 were realized by sale of flowers, fruits and plants.

69. *Suits.*—The appeal preferred by the lessee of private forests in the Attapadi valley in *Central Coimbatore* in connection with a claim to a right of way over the Mangarai-Anaikatti path through the Tadagam reserved forest was dismissed. There were no other suits of importance.

COIMBATORE,
29*th September* 1915.

C. D. MCCARTHY,
Conservator of Forests,
Western Circle.

ADMINISTRATION REPORT OF THE MADRAS FOREST COLLEGE, COIMBATORE, FOR THE YEAR ENDING 30TH JUNE 1915.

CHAPTER I.

1. The office of Principal was held by Mr. F. L. C. Cowley-Brown, Deputy Conservator of Forests, throughout the year.

2. The appointment of instructors were held by the following officers during the year :—

(1) C. B. Dawson, Esq., Deputy Conservator of Forests, throughout the year.

(2) H. C. Bennett, Esq., Deputy Conservator of Forests, from 4th December 1914.

(3) M. R. Ry. K. R. Venkataramana Ayyar Avargal, Extra Assistant Conservator of Forests, throughout the year.

(4) J. A. Aranha, Esq., Extra Assistant Conservator of Forests, from 27th July 1914.

(5) M. R. Ry. C. Srinivasa Rao Avargal, B.A., up to 4th December 1914 when he reverted to the post of Curator, Gass Museum, and Science Lecturer to the College.

The posts of Sub-Assistant Surgeon attached to the College were held by Mr. T. S. Pichu Ayyar from 5th November 1913, to throughout the year under report and by A. R. Shanmuganathan from 1st July 1914 to 17th September 1914 when he proceeded for military service. From 17th September 1914 onwards one division of the College had no medical officer.

3. In January 1915 the Gass Forest Museum was transferred to the charge of the Principal from that of the Conservator of Forests, Western Circle. The former Curator Muhammad Aziz-ud-din was appointed Special duty Officer in the Gass Museum for the purpose of assisting in the transfer, etc., of the museum to the new site.

4. The Hon'ble Mr. R. C. C. Carr vacated on 15th January 1915 the Presidentship of the Board of Visitors and was succeeded by the Hon'ble Mr. H. F. W. Gillman.

Mr. P. M. Lushington, Conservator of Forests, filled the vacancy on the Board of Visitors caused by the retirement of Mr. J. S. Battie on 3rd November 1914 and Mr. S. Cox joined the Board on 26th January 1915 as Acting Conservator, *vice* Mr. H. B. Bryant on leave.

5. The Board of Visitors met at Coimbatore in June when the final examinations were held and the College prizes and certificates were awarded. The number of senior division students at the end of the course was 29.

The following list in order of merit shows the certificates awarded :—

Honors.	Circle or State to which attached.
1. T. G. Sankaran Nayar	Southern Circle.
2. R. Srikanta Pillai...	Travancore.
3. P. Velayudan Nayar	Do.
4. T. N. Kochunni Tirumalpad	Private student.
Higher standard.	
5. A. K. Kandan	Southern Circle.
6. M. Ambu	Western ,,
7. B. Punnayya	Northern ,,
8. K. C. Joseph	Private student.
9. B. P. Tammayya	Coorg.
10. J. A. P. D'Cruz	Northern Circle.
11. C. S. Viraraghava Ayyar	Travancore.
12. Y. S. Chennigaraya	Private.
13. P. Miranda	Western Circle.

Honors.	Circle or State to which attached.
14. A. Sidda Pillai	Central Circle.
15. S. Ramanujam Sesha	Southern ,,
16. K. S. Ramiah	Private
17. R. Alagiriswami Nayudu	Central Circle.
18. E. W. Fernandez	,,
19. I. John	Private
20. N. Vijiarangam	Northern Circle.
21. B. S. Ramaswami Ayyar	Western ,,
22. M. Muhammad Sheriff	Mysore.
23. B. C. Varadarajan	Do.
24. S. Jothinayagam	Northern Circle.
25. H. Myers	Western ,,
26. K. Kunjukuttan Raja	Travancore.
27. T. V. Ommen	Private.
28. R. Govinda Pillai	Do.
Lower standard.	
29. T. Subba Rao	Mysore.

The Government and other prizes were awarded as follows :—

Name of medal.	Name of student.
Best second year student (gold medal)	T. G. Sankaran Nayar.
Do. in Forestry	Do.
Do. in Engineering	Do.
Do. in Botany	Do.
Campbell Walker prize for the best all round Ranger	Do.
Indian Forester prize for an essay	Do.
Principal's prize for Sylviculture	Do.
Survey prize awarded by the President, Board of Visitors.	T. N. Kochunni Tirumalpad.
Lodge prize for Engineering	M. Ambu.
Brasier Memorial prize for the best out-door Ranger	J. A. P. D'Cruz.
Coonoor Project Plate prize awarded by Mr. R. D. Richmond.	R. Srikanta Pillai.

6. The students of the 1913–15 division were examined by the District Medical and Sanitary officer of Coimbatore, in first aid. Twenty-five students were successful in gaining the St. John Ambulance Association certificate.

Chapter II.

For the year under report 34 students were nominated to join the College on 1st August 1914 for the 1914–16 course: namely 22 Government students, two State students from Mysore, four State students from Travancore, 1 from Cochin and 5 non-stipendiary private students. Two students failed to join, and one student within the first week was removed as he was unwilling to continue the course. In his place a Government student was selected from the Central Circle.

The list of students admitted is attached. Out of these 32 students two were withdrawn from the College for incapacity leaving 30 in residence for the second year course.

7. The final examinations in Mathematics and Physical Science for the 1914–16 division were held in June 1915.

Medals for the best junior student in Forestry, for the best junior student in Survey, for the best junior student were presented by the members of the Board of Visitors. They were all won by C. M. Kunhiraman Nayar.

Chapter III.

8. The year under review has been one of steady progress for the most part unmarked by incidents of grave importance.

9. The new College was not completed by the close of the year, and consequently the move to the new site was once more postponed. The new Gass Museum was handed over to the Principal on 18th February 1915, the transfer of show cases being effected by Messrs. Srinivasa Rao and Aziz-ud-din. The task of arranging and furnishing up the exhibits has proved far more lengthy than was anticipated, but it is now approaching completion.

The lack of adequate protection from the sun and rain, due to the peculiar type of architecture adopted, will, it is feared, seriously affect the welfare of the more delicate specimens.

10. The even tenour of the College routine was necessarily interrupted by the mobilization of the five volunteer students to perform garrison duty at Wellington and Karteri. These students were for two or three months absent from the cold weather tour, but under the orders of Government were given special averages. Student J. A. P. D'Cruz (Sergeant) was highly commended by his Commanding Officer and Adjutant for his work and influence in the corps. Over Rs. 1,300 was subscribed by the College to the War Relief Fund.

11. The 1913–15 division contained some very good men and one student of exceptional ability—the average of the 1914–16 division is somewhat lower.

The examiners reported that the senior division was well grounded and at the same time recorded some valuable suggestion for the course of instruction and training.

12. The age of the Government students, referred to in last year's administration report, is similarly in the 1914–16 and 1915–17 Divisions, higher than is consistent with the assimilation of the full benefits of the College training.

The average and the maximum ages of these Government students is as follows:—

1914–16 Government students. Average 28–5.

Students over	30	years	7
Do. ,,	31	,,	5
Do. ,,	32	,,	3
Do. ,,	33	,,	3
Do. ,,	34	,,	3
Do. ,,	35	,,	2
Do. ,,	36	,,	2
Do. ,,	37	,,	2
Do. ,,	38	,,	1

1915–17 Government students. Average 27–4.

Students over	30	years	5
Do. ,,	31	,,	4
Do. ,,	32	,,	3
Do. ,,	33	,,	2
Do. ,,	34	,,	2
Do. ,,	35	,,	

13. The 1914–16 division consists at present of 20 Government students. The conduct report register of one has not been received. Of the remainder the conduct report of one is very good, of eight good, of four fair and of six moderate.

Of the 22 Government students of 1915–17 division conduct report registers have not been received in the case of two students: of the remainder the conduct report of one is very good, of five good, of eight fair, of four moderate and of two bad.

14. The conduct of the students on the whole has been quite satisfactory. No serious breaches of discipline has occurred, and the House Committee is gradually realizing its responsibilities. It is under contemplation to accord the House Committee certain special privileges.

15. The weight of the students at the end of the year showed an increase over that recorded 12 months previously. The improvement in physique, bearing, and general smartness was most marked. All students requiring it were vaccinated at the beginning of the rains term. The health of the College throughout the year has been generally satisfactory.

16. The Standing Orders were consolidated and printed to form a code of the internal regulations of the College. The rules of the Athletic Club, the detailed allocation of marks subject war to each examination and tour, a memorandum on camp administration and the history of the College and Gass Museum (the latter compiled by Mr. Srinivasa Rao) were also printed. A draft calendar was prepared for the Press.

17. The Hon'ble Mr. A. G. Cardew and the Hon'ble Mr. R. C. C. Carr visited the students at field work in headquarters, and the Hon'ble Mr. H. F. W. Gillman inspected the camp and road construction operations at Ootacamund.

18. In October 1914, the Principal selected non-stipendiary private students for the 1915–17 course. One applicant for a private studentship who sent up a Secondary School-Leaving Certificate containing false entries, was declared permanently debarred from entering the College.

19. The cold weather tour commenced on November 1st and ended on February 28th. The junior students were taken for a preliminary tour of 10 days in August and September in the Bolampatti valley under the Principal and Mr. J. A. Aranha. The hill tour occupied the months of April and May. The touring arrangements were this year placed directly under the officers in charge of divisional camps: Mr. Dawson being in charge of the junior division camp for the whole touring season, and Mr. Venkataramana Ayyar in charge of the senior division camp until December 4th when he relinquished his duties as camp officer to Mr. Bennett. After Christmas Mr. Srinivasa Rao, in accordance with the orders of the Board, did not accompany the College on tour as Botany Instructor.

20. *Cold weather tour*: 1914–15.—The senior division visited Walayar (Central Coimbatore) Chittoor Kodivengamabhavi, and Kodur (Cuddapah district), Mamanduru (Chittoor), Bolampatti (Central Coimbatore), Yercaud, Noganur and Jowlagiri (Salem, North).

The junior division camped at Nilambur and Nedungayam (South Malabar), Mount Stuart (South Coimbatore), Bolampatti (Central Coimbatore), Trichinopoly and Mundanthurai (Tinnevelly division). The operations carried out did not differ greatly from those executed in previous years. A fine Irish bridge was constructed at Kodivengamabhavi and useful river training was undertaken at Bolampatti. The sylvicultural work included sample plots, and marking for thinnings and retention of standards.

The Bolampatti camp consisted of both divisions and as previously benefit was derived from both divisions being together. The final survey examination of the senior division was held here, each student being given three coolies and an independent area to survey. The junior division made an enjoyable and instructive excursion to Muthikulam.

The visit of the senior division to Yercaud was less profitable than had been anticipated, and might be dispensed with in future years. At Noganur this division (divided into parties) made a working plan. The junior division derived distinct profit from the tour to the Padugais near Trichinopoly, where St. Joseph's College Industrial School was also visited with advantage. At Calicut they paid an instructive visit to the oil and saw mills. During the whole of their tour special stress was laid on the relations of soil to tree growth.

21. *Hill tour*.—The senior division were in camp at Bandyshola about five miles above Coonoor in tents, and the junior division at Ootacamund in the Fernhill lines occupied during the previous two hill tours. The work of both divisions may be gauged by the following extract from a note prepared for the Board of Visitors:—
"The special work of the College during the hill tour this year has been (in addition to the general study of the sylvicultural problems presented by the varying types of forests visited).

Senior division.—Kargudi: Thinnings of degraded forests for the District Forest Officer. Study of improvement fellings, road system and fire protection. Elephant lectures by the Veterinary Assistant and practical work in harnessing and management of elephants including Kraals and nursery. Timber dragging and elephant capturing were also studied.

Bandyshola (*five miles above Coonoor*).—The alignment of four roads (aggregating four miles five furlongs) for the exploitation of Teneriffe, Bleak House, Coonoor Peak, Old Forest and Spring Field. This is the most important engineering work the College has ever undertaken and will enormously appreciate the value of these forests. It was previously anticipated that the services of the Forest Engineer would be required for the project, but the division has proved itself equal to this ambitious task.

Other engineering works undertaken.—(1) Preparation of contour maps of Coonoor Peak R. F. including survey of all existing and proposed roads and bridle paths. (2) Preparation of separate plan of roads connected with the land acquisition. (3) Collection of data and preparation of proposition statement for the acquisition of the land involved. (4) Preparation of detailed reports, estimate and specification with longitudinal and cross-sections drawn to scale for all new roads aligned. (5) Study of ground for construction of fuel slides in Coonoor Peak R. F. (6)

Preparation of final reports, with full working details and estimate of the new roads for District Forest Officer, Nilgiris. (7) Construction of particularly difficult piece of road along one of the proposed alignments (for demonstration purposes) and also in order to collect data for the rates proposed in the estimate.

The following plantations were marked for thinnings:—Newman, Eucalyptus 549 trees marked. Coonoor Peak: Frenella, Cupressus and Pinus: 10·7 acres of 1,671 trees marked. Sim's Park: small plantations of Syncarpia and Buchlandia marked.

Junior division.—Checking and rectification of the boundaries of Arambi and Cairn Hill. One compartment in Muthinad marked for thinning. Charcoal operations in Muthinad. Alignment and complete construction of a bridle path (about one mile) in Cairn Hill. Thinning of Pinus Longif Pinus Marit and Frenela. Wounding the soil for the purpose of provoking the regeneration.

Study of the problem of timber production of nine new Eucalyptus species in three plantations at 6,000′, 7,000′ and 8,000′. Volume measurement by calculated form factor for Frenela and Cupmacracarpa sample plots. Measurement of sample plots in Muthinad reserve. Study of Eucalyptus Oil distillation.

In future years apart from general sylvicultural studies, there is ample scope for work in carrying out the prescriptions of Mr. Cox's working plan, *e.g.*, the checking and correction of boundaries, of enclosures, the survey alignment and cutting of compartment and block lines, thinnings and improvement fellings, charcoal making, construction of roads and especially of slides, etc.

Botanically the students' knowledge and horizon are greatly enlarged by the opportunity of studying the exotics and shola trees *in situ* and in Sim's Park and the Government Gardens.

The physical benefit of the hill tour scarcely needs demonstration. The students lead the ideal Forester's life—they have very few lectures and are out in the field from 7-30 A.M. till 4 P.M. or later in the finest of climates. At Coimbatore they undoubtedly have to undergo a prolonged intellectual strain, and the change in their bearing and alertness by the end of the hill tour is most noticeable."

22. The summer term (June 15) was occupied with a brief refresher course and by the final examinations. Sanction was obtained for the employment of outside examiners in the major subjects. The Board of Visitors which met on June 27th 28th, 29th and July 1st discussed some forty subjects including the draft calendar. The following are amongst the most important resolutions arrived at:—Nilgiri tour to be reduced to one month annually for each division. Yercaud, Javadis, Cuddapah and Chittoor tours to be abolished: Mathematics to be removed from the syllabus, and science to be reduced: Principal to be given an annual allotment for the maintenance of the college estate: one periodical examination abolished: marks reallotted giving 500 marks for Range Administration and Law now combined as major subject: construction of Principal's bungalow to be expedited: "Honours" Government students to be guaranteed IV grade Rangerships: "Higher Standard" Government students to be guaranteed VI grade Rangerships: students to be given 15 days' joining time after leaving the college: House Tutor to be granted free quarters: Principal to be given an annual allotment for purchase of books: also power to have all college printing carried out locally, students' uniforms slightly modified in one suit: seigniorage not be charged on timber supplied departmentally to the college.

The majority of these recommendations have been submitted for the orders of Government.

23. Sanction of the Government of India was received this term to the proposal to pay all Government students of the rank of Deputy Rangers a fixed stipend of Rs. 50 (inclusive of travelling allowance).

24. The athletic life of the college has during the year been systematised and developed. Under the stimulus of a system of college colours, awarded only to those who attain a certain standard of efficiency, a great keenness is evident in the college games. The college was victorious in 12 out of 27 matches played. At the athletic sports meeting held in October J. A. P. D'Cruz secured the Champion Challenge Cup.

The Marathon race run in January over seven miles of undulating country at Bolamapatti was won by A. K. Kandan. Practically the whole college competed. On tour the students were instructed in swimming. Mr. Bennett since he joined the staff has been in charge of the Athletic Club. In addition to squad, fire and whistle drill which form part of the college curriculum the senior division under the leadership of student D'Cruz voluntarily trained themselves in physical drill and gave a demonstration to the Board of Visitors.

25. The stock of the college was carefully checked in October and again in July after the close of the year under report. Steps were taken to counteract several irregularities that had gradually crept in. The necessity for a detailed scrutiny of the stock and accounts by a professional officer unconnected with the College is an increasingly urgent necessity. During the year the Store-keeper's branch was entirely separated from the Head Clerk's branch of the Principal's office, and rules of office procedure were drawn up. The administration of the Head Clerk's and Store-keeper's branch was extremely unsatisfactory. The permanet Head Clerk Mr. Pattabirama Ayyar was granted leave on the grounds of ill-health in May. His successor Mr. Krishnaswami Ayyangar has effected a great improvement in the method, punctuality and efficiency of his branch of the office, but the staff is admittedly inadequate as regards both number and quality.

26. The thanks of the Principal are due to those officers in whose divisions the college has toured, for their co-operation and assistance in making all arrangements possible for the comfort of the camps. Mr. R. D. Richmond was indefatigable in affording direct help to the college during the hill tour and showed a tangible and practical interest in the engineering work of the senior division at Bandyshola, by undertaking the laborious task of correcting the Coonoor project plates. He also very kindly presented a prize for this project.

Lieut.-Colonel Fernside and his Assistants Messrs. Madhava Menon and Viswanatha Sarma were good enough to undertake and supervise the Final examination in First Aid, for which St. John Ambulance certificates were awarded to the successful students.

The college is indebted this year to several officers and well-wishers who have given books to the library and trophies to the Museum.

27. The Staff of the College has as usual worked with a whole-hearted devotion to duty, and with the single object of producing highly trained and practical Rangers. Mr. Venkatramana Ayyar's departure, after three years of strenuous work of the highest professional merit, is a serious loss to the college, and to his powers of organisation in the responsible post of House Tutor the present standard of the college discipline is in no small measure due.

Madras Forest College, Coimbatore,, 1914–16 division.

Number and Name of Student.	Circle or State to which attached.
Government Students.	
1. W. Balakrishna Mudaliyar	Northern Circle.
2. K. Raghava Rao	Do.
3. C. T. Tiruvengadam	Do.
4. K. T. Venkatachar	Do.
5. T. E. Varadachari	Do.
6. C. M. Kunhiraman Nair	Central Circle.
7. K. G. Sundararaja Rao	Do.
8. A. Kannappa Mudaliyar	Do.
9. M. Krishna Ayyar	Do.
10. K. G. Srinivasa Rao	Do.
11. Saiyid Vazih-ud-din Sigbatullohi	Southern Circle.
12. Saiyid Manavar	Do.
13. C. H. Ashe	Do.
14. P. A. Krishnaswami Mudaliyar	Do.
15. G. Devanayakam Nayudu	Do.
16. A. P. Sreenivasa Ayyangar	Western Circle.
17. A. Swamikutti	Do.
18. P. Krishnan	Do.
19. K. Kunhiroyan	Do.
20. S. Srinivasa Rao	Do.

State students.

21. D. Krishna Ayyangar ... ... Travancore.
22. T. K. Prameswaram Pillai ... ... Do.
23. K. Ramachendriah ... ... Do.
24. Kerala Varma Tambiran ... ... Do.
25. Gulam Russool ... ... Mysore.
26. Korah Fenn ... ... Cochin.

Private students.

27. B. Sambamurthi ... ... Private.
28. T. S. Narayanaswami Chetti ... ... Do.
29. T. R. Naganatha Ayyar ... ... Do.
30. M. N. Raman Pillai ... ... Do.

Madras Forest College, Coimbatore.

Summary revenue and expenditure for the Forest year 1914–15.

Head or service.	Revenue. RS. A. P.
Receipts.	
V (*b*)	2,961 8 10
A.—Expenditure.	
I (*c*)	0 13 4
VI (*c*)	3,666 13 11
VII (*b*)	75 3 10
VIII (*e*)	11 8 6
VIII (*g*)	311 8 0
IX (*b*)	393 10 3
Total of A.	4,459 9 10
B.—	
I (*b*)	43,341 11 11
I (*c*)	19,082 10 3
I (*d*)	2,362 4 6
II (*b*)	5,381 10 0
II (*c*)	6,074 0 4
II (*d*)	685 11 2
III (*a*)	938 6 5
III (*b*)	612 13 0
III (*d*)	6,586 12 0
Total of B	85,065 15 7
Grand total of A and B	89,525 9 5

ABSTRACT showing the live stock, stores, tools, etc., for the year ending with 30th June 1915.

District.	Description of stock.	On hand at commencement of the year (from 1st July 1914).		On hand at the end of the year (up to 30th June 1915).		Difference in value in favour of the year.	Difference in value against the year.
		Number.	Amount.	Number.	Amount.		
			RS. A. P.		RS. A. P.	RS. A. P.	
Madras Forest College, Coimbatore.	Surveying and other instruments.	717	6,270 7 7	1,151	6,944 13 9	674 6 2	..
	Tools	383	680 3 10	384	683 3 10	3 0 0	..
	Furniture	406	2,426 12 8	460	2,850 13 5	424 0 9	..
	Tents	101	10,370 8 3	115	11,271 2 3	900 10 0	..
	Uniforms and accoutrements.	244	592 11 6	308	828 6 11	235 11 5	..
	Science apparatus ..	2,474	2,422 6 0	4,074	3,120 2 0	697 12 0	..
	Carpentry tools ..	..	..	21	132 2 0	132 2 0	..
	Photographic instruments.	..	..	2	604 8 0	604 8 0	..
	Miscellaneous ..	455	1,660 3 9	487	1,737 1 9	76 14 0	..
	Total ..	4,780	24,423 5 7	7,002	28,172 5 11	3,749 0 4	..

TABLE OF CONTENTS.

	PAGE
Appendix A.—Abstract of fires	i & ii
Do. B.—Comparative statement of impounded cattle	iii
Area of reserved forests and reserved lands (No. 65)	iv & v
Progress made in, and the expenditure incurred on, forest settlements (No. 66)	vi to xi
Record of demarcation and maintenance of boundaries (No. 67)	xii & xiii
Progress made in working-plans (No. 69)	xiv & xv
Communications and buildings (No. 70)	xvi & xvii
Register of breaches of Forest Rules (No. 71)	xviii to xxvii
Area of forest tracts protected from fire (No. 72)	xxviii to xxx
Area closed and open to grazing (No. 73)	xxxi & xxxii
Return of grazing in the State forests (No. 74)	xxxiii to xxxviii
Artificial reproduction (No. 75)	xxxix to xli
Statement showing the outturn of timber and fuel and agency of exploitation (No. 76)	xlii to xlvii
Outturn of minor forest produce (No. 77)	xlviii & xlix
Account of timber, etc., in depots and sold locally (No. 78)	l to liii
Statement showing the value of timber and other produce at sale depots (No 79)	liv to lvi
Summary of revenue and expenditure (No. 80)	lvii to lxiv
Summary of the above prepared in the Board's office	lxv & lxvi
Outstandings and liabilities on account of contractors and disbursers (No. 81)	lxvii
Revenue received and outstandings on account of revenue (No. 82) ...	lxviii
Statement of financial results (No. 83)	lxix
Statement of elephants, etc. (No. 84)	lxx & lxxi
Abstract of value of stores, tools and plants (No. 85)	lxxii

APPENDICES.

Appendix A.—Comparative statement of number and origin of fires that occurred during 1914–15.

District.	A. Fires caused by accident or through carelessness in burning fire lines.		B. Fires entering the forests by crossing exterior fire lines.		C. Fires beginning inside the reserves or fire traced areas. Owing to carelessness or accident. By workmen employed in the forests, by purchasers of forest produce and by hay cutters.		C. (Owing to carelessness or accident.) By villagers, travellers, etc., passing through the forests.		C. (Owing to carelessness or accident.) By railway engines.		C. (Owing to carelessness or accident.) By lightning or by fire balloons.	
	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Northern Circle.												
Ganjām	7	173	7	493	..	..	28	2,722	..	..	..	..
Vizagapatam	2	345	..	..	2	408	2	1,592	..	..	..	..
Gōdāvari, Upper ..	..	..	21	63,184	..	..	1	..	..	..	..	..
Do. Lower ..	..	..	8	574	..	..	16	658	..	..	..	..
Kistna	..	..	..	..	..	..	3	32	..	..	..	..
Kurnool, East	2	323	6	5,755	..	..	..	..	..	..	..	..
Do. South	2	88	2	28,880	4	4,982	6	650	4	19	..	..
Do. West	6	344	6	8,479	..	..	9	530	3	107	..	..
Total ..	19	1,278	50	107,365	6	5,390	65	6,184	7	126	..	..
Central Circle.												
Bellary	38	88	..	90	..	..	17	3,092	4	266	1	320
Anantapur	3	7,554	2	..	1	12	4	213	..	..	..	..
Guntūr	..	..	..	..	..	..	11	101	..	..	..	..
Cuddapah, West ..	3	4,102	21	30,012	4	1,446	2	850	..	..	..	..
Do. East ..	6	5,790	29	22,517	2	131	10	10,675	..	..	..	..
Nellore	..	..	5	330	..	..	2	63	..	..	..	..
Chingleput	..	..	..	..	..	..	..	..	..	..	..	..
Chittoor	..	..	7	2,701	..	..	6	828	..	..	..	..
Total ..	50	17,534	64	55,650	7	1,589	52	15,822	4	266	1	320
Southern Circle.												
North Vellore	3	191	..	..	..	..	1	18	..	..	..	.
South do.	..	..	..	..	..	..	4	97	..	..	..	..
South Arcot	..	..	..	..	..	..	..	..	..	..	..	..
North Salem	..	..	..	..	..	..	4	935	..	..	..	..
South do.	..	..	..	..	..	..	..	..	..	..	.	..
Trichinopoly	..	..	..	..	..	..	9	141	..	..	..	..
Madura	..	..	20	1,233	..	..	2	435	..	..	..	..
Tinnevelly	..	..	7	212	4	953	3	6	1	35	2	326
Total ..	3	191	27	1,445	4	953	23	1,632	1	35	2	326
Western Circle.												
South Canara	6	37	29	294	7	101	35	510	..	..	..	..
Malabar, North	1	40	1	9	..	..	..	..	..	..	..	..
* Do. South	..	..	..	..	1	100	..	..	..	..	..	..
* The Nilgiris	1	6	..	..	..	..	11	479	..	..	..	..
Kollegal	1	1,027	..	..	..	..	..	..	..	..	..	..
Coimbatore, North ..	4	14	..	..	4	160	9	647	..	..	..	..
Do. Central ..	3	34	1	100	1	9	3	26	..	..	..	..
Do. South ..	..	..	2	71	7	218	3	258	..	..	..	..
Total ..	16	1,158	33	474	20	588	61	1,920	..	..	..	..
Grand total ..	88	20,161	174	164,934	37	8,520	201	25,558	12	427	3	646
Grand total for 1913–14.	81	17,065	183	226,029	54	21,380	306	57,422	10	2,563	13	719

* Includes the number of fires in the areas not under special protection.

Appendix A—Comparative statement of number and origin of fires that occurred during 1914–15—*cont.*

District.	C. Fires beginning inside the reserve or fire-traced areas—*cont.* By intentional firing. In order to obtain new grass. Number of fires.	Area burnt in acres.	In order to turn out game or to reduce cover. Number of fires.	Area burnt in acres.	Maliciously fired. Number of fires.	Area burnt in acres.	Total. Number of fires.	Area burnt in acres.	Causes unknown. Number of fires.	Area burnt in acres.	Total of A, B, C and causes unknown. Number of fires.	Area burnt in acres.
	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
Northern Circle.												
Ganjām	..	..	1	75	7	576	36	3,373	43	2,360	93	6,404
Vizagapatam	..	..	..	..	..	..	4	2,000	18	9,929	24	12,274
Gōdāvari, Upper	* 3	67	..	..	..	..	4	67	5	729	30	63,980
Do. Lower	..	..	3	48	3	10	22	716	5	41	35	1,331
Kistna	..	..	..	..	..	..	3	32	..	..	3	32
Kurnool, East	10	701	2	210	14	9,625	26	10,536	5	269	39	16,883
Do. South	5	17,284	6	831	2	582	27	24,348	36	24,897	67	78,213
Do West	11	3,095	.	..	25	21,448	48	25,180	40	13,382	100	47,385
Total ..	29	21,147	12	1,164	51	32,241	170	66,252	152	51,607	391	226,502
Central Circle.												
Bellary	26	7,651	..	..	..	..	48	11,329	48	7,224	134	(a) 26,141
Anantapur	21	6,225	..	..	9	1,341	35	7,791	27	2,083	67	10,018
Guntūr	..	..	..	..	..	..	11	101	..	..	11	(a) 101
Cuddapah, West ..	46	11,886	5	847	15	8,594	72	23,623	5	2,070	101	59,807
Do. East ..	79	22,419	..	..	6	2,525	97	35,750	38	11,791	170	75,848
Nellore	..	..	..	..	..	..	2	63	3	224	10	617
Chingleput	..	..	..	.	..	..	..	..	2	357	2	357
Chittoor	12	898	1	75	3	140	22	1,941	12	201	41	4,843
Total ..	184	49,079	6	922	33	12,600	287	80,598	135	23,950	536	177,732
Southern Circle.												
North Vellore	11	819	..	..	..	..	12	837	20	1,189	35	2,217
South do.	23	1,087	1	70	..	..	28	1,254	14	461	42	1,715
South Arcot	..	..	..	..	1	..	1	..	3	9	4	9
North Salem	..	..	..	..	1	3	5	938	38	3,964	43	4,902
South do.	1	16	..	..	..	..	1	16	22	673	23	689
Trichinopoly	..	..	..	..	1	5	10	146	..	..	10	146
Madura	3	305	1	150	10	572	16	1,462	27	911	63	3,606
Tinnevelly	10	4,046	3	87	2	1,565	25	7,018	6	201	38	7,431
Total ..	48	6,273	5	307	15	2,145	98	11,671	130	7,408	258	20,715
Western Circle.												
South Canara	8	91	7	172	1	1	58	875	22	600	115	1,806
Malabar, North	..	..	..	..	..	..	..	..	..	..	2	49
† Do. South	..	..	..	..	..	..	1	100	1	10	2	110
† The Nilgiris	..	..	..	..	..	..	11	479	..	..	12	485
Kollegal	2	1,160	5	5,720	8	2,451	15	9,331	..	..	16	10,358
Coimbatore, North ..	..	..	..	..	..	..	13	807	13	8,260	30	9,081
Do. Central ..	..	..	1	7	1	7	6	49	3	75	13	258
Do. South ..	3	29	1	6,400	1	1	15	6,906	1	200	18	7,177
Total ..	13	1,280	14	12,299	11	2,460	119	18,547	40	9,145	208	29,324
Grand total ..	274	77,779	37	14,692	110	49,446	674	177,068	457	92,110	1,393	454,273
Grand total for 1913–14.	211	48,445	33	21,199	97	67,482	724	219,210	762	253,976	1,750	716,280

* To facilitate collection of bassia flowers.

† Includes the number of fires in the areas not under special protection.

(a) Includes 20,859 and 49 acres, respectively, burnt in unprotected blocks.

APPENDIX B.—Comparative statement of impounded cattle (1914–15).

District.	Number of cattle impounded.		Average for three years ending 1914-15.
	1913–14.	1914–15.	
Northern Circle.			
Ganjām	852	1,160	1,395
Vizagapatam	1,194	1,057	1,039
Gōdāvari Upper	386	293	311
Do. Lower	797	1,167	1,069
Kistna	2,729	3,452	3,301
Kurnool, East	9,937	8,962	7,703
Do. South	3,049	5,332	3,454
Do. West	15,037	11,600	12,523
Total ..	33,981	33,023	30,795
Central Circle.			
Bellary	13,797	13,770	15,514
Anantapur	9,859	10,376	10,348
Guntūr	19,536	28,178	24,851
Cuddapah West	11,872	8,800	9,017
Do East	5,631	5,569	5,626
Nellore	17,725	15,178	17,272
Chingleput	4,694	8,322	5,746
Chittoor	9,523	8,983	8,936
Total ..	92,637	99,176	97,310
Southern Circle.			
North Vellore	7,331	7,989	8,260
South do.	4,613	7,884	6,559
South Arcot	15,820	24,650	18,526
North Salem	4,873	4,418	4,574
South do.	3,847	6,708	3,546
Trichinopoly	* 9,182	5,561	7,261
Madura	5,834	7,318	6,917
Tinnevelly	3,663	2,328	2,666
Total ..	55,163	66,856	58,309
Western Circle.			
South Canara	609	747	895
Malabar, North	30	82	128
Do. South	81	83	152
The Nilgiris	378	959	490
Kollegal	3,388	3,031	3,357
Coimbatore, North	2,061	2,437	3,568
Do. Central	987	1,411	1,924
Do. South	1,399	588	996
Total ..	8,933	9,338	11,510
Grand Total ..	190,714	208,393	197,924

* Revised figure furnished by the Collector.

Annual Form No. 65.

Forest Department, Madras Presidency.

Area of reserved forests and reserved lands during 1914–15.

District.	Area of reserved forests.					
	Area on 1st July 1914.		Added during the year.	Excluded during the year.	Area on 30th June 1915.	
	Acres.	Equivalent in square miles.	Acres.	Acres.	Acres	Equivalent in square miles.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Northern Circle.						
Ganjām	364,132	569	..	..	364,132	569
Vizagapatam	193,832	303	5,181	..	199,013	311
Gōdāvari, Upper	273,751	428	..	..	273,751	428
Do. Lower	258,276	404	..	..	258,276	404
Kistna	177,328	277	3,284	7,229	173,383	271
Kurnool, East	640,302	1,000	..	..	640,302	1,000
Do. South	490,439	766	68	42	490,465	766
Do. West	555,071	867	..	..	555,071	867
Total	2,953,131	4,614	8,533	7,271	2,954,393	4,616
Central Circle.						
Bellary	401,361	627	23	(h) 4,940	396,444	619
Anantapur	475,321	743	..	..	475,321	743
Guntūr	521,247	814	..	..	521,247	814
Cuddapah, West	470,073	734	..	..	470,073	734
Do. East	693,364	1,083	107	..	693,471	1,084
Nellore	472,001	738	(g) 4,397	(i) 10,002	466,396	729
Chingleput	133,973	209	10	529	133,454	209
Chittoor	537,155	840	21	706	536,470	838
Total	3,704,495	5,788	4,558	16,177	3,692,876	5,770
Southern Circle.						
North Vellore	313,063 (a) – 7 (b) + 2,118	489 (b) + 3	1	1,046	314,129	491
South do.	457,783 (b) – 2,118	715 (b) – 3	..	(d) 72	455,593	712
South Arcot	215,796	337	..	972	214,824	336
North Salem	507,374	792	..	..	507,374	792
South do.	371,762	581	..	81	371,681	581
Trichinopoly *cum* Tanjore	226,994 (c) + 104	355	..	..	227,098	355
Madura	422,888	661	16 (e) 112	155 (e) 2,026	420,835	657
Tinnevelly *cum* Rāmnād	274,300	429	..	(f) 2	274,298	429
Total	2,789,960 + 97	4,359	129	4,354	2,785,832	4,353
Western Circle.						
South Canara	510,590	798	251	95	510,746	798
Malabar, North	167,785	262	313	..	168,098	263
Do. South	69,405	108	22,120	..	91,525	143
The Nilgiris	303,984	475	..	65	303,919	475
Kollegal	467,166	730	79	33	467,212	730
Coimbatore, North	589,951	922	27	..	589,978	922
Do. Central	225,932	353	8 (g) 23	..	225,963	353
Do. South	290,652	454	..	..	290,652	4 54
Total	2,625,465	4,102	22,821	(h) 193	2,648,093	4,138
Grand total	12,073,148	18,863	36,041	27,995	12,081,194	18,877

(a) Represents area disafforested in 1911 and omitted to be shown in previous returns.
(b) ,, transfer from South to North Vellore.
(c) Correct figures furnished by the Collector.
(d) Deducted as per actual area found on demarcation of a reserve.
(e) On account of recomputation of areas investigated by the Special Deputy Collector.
(f) Area already included under reserve now transferred for re-settlement.
(g) Recomputation of areas.
(h) Disafforested.
(i) 8,610 acres (13 square miles) by correct computation of areas and 1,392 acres (2 square miles) by disafforestation.

Area of reserved forests and reserved lands during 1914–15—*cont.*

District.	Area of reserved lands.						Total area of reserved forests and reserved lands in square miles.
	Area on 1st July 1914.		Added during the year.	Excluded during the year.	Area on 30th June 1915.		
	Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.	
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Northern Circle.							
Ganjām	44,480	70	..	..	44,480	70	639
Vizagapatam	6,727	(*b*) 10	385	5,400	1,712	(*b*) 3	314
Gōdāvari, Upper	226,489	354	..	..	226,489	354	782
Do. Lower	47,955	75	..	..	47,955	75	479
Kistna	..	..	..	..	..	..	271
Kurnool, East	..	..	..	..	..	..	1,000
Do. South	69	(*a*) ..	..	69	..	..	766
Do. West	..	..	..	..	..	..	867
Total ..	325,720	509	385	5,469	320,636	502	5,118
Central Circle.							
Bellary	40,023	63	..	23	40,000	63	682
Anantapur	6,578	10	..	..	6,578	10	753
Guntūr	..	..	..	..	..	..	814
Cuddapah, West..	..	..	..	..	..	..	734
Do. East	107	..	158	107	158	..	1,084
Nellore	..	..	..	..	..	..	729
Chingleput	19	..	..	10	9	..	209
Chittoor	21	..	42	21	42	..	838
Total ..	46,748	73	200	161	46,787	73	5,843
Southern Circle.							
North Vellore	73	..	..	1	72	..	491
South do.	27	..	..	..	27	..	712
South Arcot	..	..	..	..	..	..	336
North Salem	29,290	46	..	..	29,290	46	838
South do.	11,620	18	..	..	11,620	18	599
Trichinopoly *cum* Tanjore	4,610	7	1,159	..	5,769	9	364
Madura	20	..	6	16	10	..	657
Tinnevelly *cum* Rāmnād	72	..	2	..	74	..	429
Total ..	45,712	71	1,167	17	46,862	73	4,426
Western Circle.							
South Canara	346	1	5	251	100	..	798
Malabar, North	313	..	..	313	..	..	263
Do. South	34,925	55	..	22,120	12,805	20	163
The Nilgiris .. . .. {	49,590	77	242	..	49,832	78	} 558
	* 2,918	5	..	..	2,918	5	
Kollegal	489	1	33	79	443	1	731
Coimbatore, North	129	..	127	27	229	..	922
Do. Central	6,402	10	56	8	6,450	10	363
Do. South	142	..	..	..	142	..	454
Total ..	95,254	149	463	(*c*)22,798	72,919	114	4,252
Grand Total ..	513,434	802	2,215	28,445	487,204	762	19,639

* Toda patta lands.

(*a*) Less than half a square mile.

(*b*) Includes 2·05 square miles of Karakavalasa leased forests and its east and west blocks.

(*c*) Transferred to reserved forests.

ANNUAL

Forest Department,

STATEMENT showing the progress made in, and the

Name of forest district.	Area already settled at commencement of year.	Areas finally settled during the year.					
		Number and date of Government Order according final sanction to the settlement.	Name of forest settled.	Area in square miles.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.
					In forest accounts.	In other accounts.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
							Northern
	SQ. MLS.			SQ. MLS.	RS.	RS.	RS.
Ganjām ..	569	....	....	..	..	..	..
Vizagapatam	303	G.O. No. 550, Revenue, dated 1st March 1915.	Sarugudu block VI	(a) 8·09	..	..	..
Gōdāvari, Upper.	428	....	....	..	..	..	..
Gōdāvari, Lower.	404	....	....	..	..	..	..
Kistna ..	(b) 271	....	....	..	..	..	..
Kurnool, East.	1,000	....	....	..	..	..	..
Kurnool, South.	766	G.O. No. 848, Revenue, dated 9th April 1915.	South Veligonda extension II.	0·10	..	..	..
		G.O. No. 298, Revenue, dated 3rd February 1915.	Pyapalli addition I	0·005	..	..	..
Kurnool, West.	867	....	....	..	..	.	..
Total ..	4,608			8·195	..	..	..
							Central
Bellary ..	619	G.O. No. 1559, Revenue, dated 28th May 1914.	Enclosure to Neraniki reserve.	0·04	..	..	..
Anantapur..	743	....	....	..	..	..	..
		....	....	..	..	..	..
Guntūr ..	814	....	....	..	..	..	..
Cuddapah, West.	734	....	....	..	..	..	..
Cuddapah, East.	1,084	G.O. No. 2626, Revenue, dated 11th September 1914.	Sancherla extension C ..	0·167	..	..	..
	..	....	....	..	..	..	..

NOTE.—This estimate will include all reserved lands under section 26 and unreserved lands.
(a) 0·34 square miles of area given in excess in previous year excluded at settlement.
(b) Difference of 6 square miles is due to—
(1) Disafforestation—11·29.
(2) Rectification of boundaries + 5·13.

FORM No. 66.

Madras Presidency, Northern Circle.

expenditure incurred on, Forest Settlements during 1914–15.

Areas undergoing settlement.						
At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing settlement.		Estimate of areas in which settlement operations have not yet commenced.
Name of tract. (9)	Area in square miles. (10)	Name of tract. (11)	Area in square miles. (12)	In forest accounts. (13)	In other accounts. (14)	(15)
Circle.						
	SQ. MLS.		SQ. MLS.	RS.	RS.	SQ. MLS.
Chokkapad	69·50	....	..	..	..	..
....	..	Busilkota and Rayipalem ..	0·60	..	..	..
Pedamidisileru	96·48	....	..	..	..	..
Pedakonda extension I ..	1·23	....	..	..	..	..
Tulluvada extension V ..	0·50	....	..	..	..	..
Enakuru extension II ..	0·50	....	..	..	..	..
Nugur block	246·61	....	..	..	..	..
Marrigura reserve, Busipakala enclosure.	1·88	....	..	..	..	..
Valsugri reserve, Korrajulagudem extension I.	1·93	....	..	..	..	..
Gummadakonda extension III to the Rekapalli hill reserve.	2·40	....	..	..	..	..
Dhanukonda extension IV to the Rekapalli hill reserve.	1·53	....	..	..	..	..
Kansulur reserve, Vandalurgondi extension I.	0·82	....	..	..	..	..
Coringa extension	75	....	..	..	..	..
....	..	....	..	..	..	..
....	..	....	..	..	..	..
....	..	....	..	..	..	..
....	..	....	..	..	..	..
....	..	....	..	..	..	..
	498·38	....	0·60	..	..	..
Circle.						
....	..	....	..	..	..	..
Yerrakonda extension No. II.	9·80	Addition to Amagondapalyam reserve.	0·02	..	..	..
Bhadrapur extension	0·56	Addition to Peddoddi reserve.	0·09	..	..	..
....	..	....	..	..	..	..
....	..	Faridpenta enclosure to Palakondas.	0·024	..	..	180
....	..	Thummalabylu	0·116	..	..	..
....	..	Palakondas	0·13	..	..	..

Statement showing the progress made in, and the expenditure

Name of forest district. (1)	Area already settled at commencement of year. (2)	Areas finally settled during the year. Number and date of Government Order according final sanction to the settlement. (3)	Name of forest settled. (4)	Area in square miles. (5)	Expenditure incurred during the year on areas finally settled. In forest accounts. (6)	In other accounts. (7)	Entire cost per square mile of areas finally settled during the year. (8)
Central							
	SQ. MLS.			SQ. MLS.	RS.	RS	RS.
Nellore ..	729	....	....	..	..	..	..
Chingleput.	209	G.O. No. 376, Revenue, dated 9th February 1915.	Perungoli extension No. II. ..	0·020	..	..	..
Chittoor ..	838	G O. No. 2436, Revenue, dated 22nd August 1914.	Addition to Bommasamudram C.	·025	..	..	..
		G.O. No. 3101, Revenue, dated 29th October 1914.	Addition to Whiteside's garden.	·004	..	..	..
		G.O. No. 651, Revenue, dated 11th March 1915.	Addition to Marella and its extension.	·004	..	..	..
Total ..	5,770			0·260	..	..	..
Southern							
Vellore, North.	489 (a) + 3 (b) − 1	G.O. No. 3003, Rev., dated 15th October 1914.	Panamadangi reserve, Survey No. 18 of Vandrantangal village.	0·0020	..	..	..
Vellore, South.	715 (a) − 3	....	....	..	..	..	..
Arcot, South.	337 (b) − 1	....	....	..	..	..	..
Salem, North.	792	....	....	..	..	..	..
Salem, South.	581	....	....	..	..	..	..
Trichinopoly *cum* Tanjore.	355	....	....	..	..	..	..
Madura ..	661 (c) − 4	G.O. No. 375, Rev., dated 9th February 1915.	Addition to Adukkam ..	0·0007	..	..	..
	..	G.O. No. 2239, Rev., dated 4th August 1914.	Southern slopes	0·0137	47	..	..
		G.O. No. 2435, Rev., dated 22nd August 1914.	Kokkuparai	0·0118	..	..	..
Tinnevelly *cum* Ramnad.	429	....	....	..	..	..	..
Total ..	4,359 − 6			0·0282	47	..	..
Grand Total.	4,353			0·0282	47	..	..

(a) Transfer from South to North Vellore.
(b) Disafforested area deducted.
(c) Excluded on account of areas investigated by the Special Deputy Collector and disafforested.

incurred on, forest settlements during 1914–15—*cont.*

Areas undergoing settlement.						
At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing settlement.		Estimate of areas in which settlement operations have not yet commenced.
Name of tract. (9)	Area in square miles. (10)	Name of tract. (11)	Area in square miles. (12)	In forest accounts. (13)	In other accounts. (14)	(15)
Circle—cont.						
				RS.	RS.	SQ. MLS.
....	..	....	..	..	..	..
Nandambakkam extension No. II.	0·01	....	..	..	..	..
....	..	Addition to Gundlur reserve ..	0·015	..	..	..
....	..	Addition to Ankalammakonda	·05	..	..	..
....	..	....	..	..	..	..
	10·37		0·445	..	..	180
Circle.						
Sholavandan reserve	0·0281	....	..	..	..	..
Karapattu extension	0·0844	....	..	..	..	..
Singarapet extension, Survey Nos. 129 and 130 of Sembarai village.	0·0341	....	..	..	..	..
Andiappanur reserve, Survey Nos. 260 and 261 of Andiappanur village.	0·0062	....		..	..	..
....	..	....	..	..	..	
Hudaiadurgam	46	....	..	..	..	..
Arana	3	....	..	..	..	..
Tirthagiri	3	....	..	..	..	..
Jarugamalai	12·230	....	..	..	..	..
Vengur padugais	1·000	Ariyur shola	1·8100	..	..	..
Palamalai extension	1·390	....	..	..	..	..
V. Kanapadi extension ..	1·000	....	..	..	..	..
Gundur extension	3·850	....	..	..	..	(*d*) 8·73
Southern slopes	0·0062	Adukkam	0·0082	..	..	..
....	..	Pambar	0·0014	..	..	..
....	..	....	..	..	..	..
Mailodai and Tirukuttuchalaparvathan estates.	0·114	Srivilliputtur ghat forest ..	0·0027	..	..	..
	71·7433		1·8223	..	..	8·73
	71·7433		1·8223	..	..	8·73

(*d*) Difference abandoned.

Statement showing the progress made in, and the Expenditure

Name of forest district.	Area already settled at commencement of year.	Areas finally settled during the year. Number and date of Government Order according final sanction to the settlement.	Name of forest settled.	Area in square miles.	Expenditure incurred during the year on areas finally settled. In forest accounts.	In other accounts.	Entire cost per square mile of areas finally settled during the year.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Western							
	SQ. MLS.				RS.	RS.	RS.
South Canara.	798	G.O. No. 2672, dated 16th Sept. 1914.	Mudugalpare extension No. I.	·02	..	..	..
		Do.	Naravi extension No. VI ..	·04	..	..	..
		G.O. No. 3224, dated 10th Nov. 1914.	Ballimane extension No. III.	·32	..	..	..
		G.O. No. 762, dated 26th March 1915.	Tombettu extension No. II ..	·02	..	..	..
Total ..	798			·40	..	..	..
Malabar, North.	262	G.O. No. 2482, dated 27th August 1914.	Chammatti malai estate (Hill-dale addition).	·32	..	..	..
		G.O. No. 2483, dated 27th August 1914.	Mangalad estate (Peria addition).	·13	..	..	..
Total ..	262			·45	..	..	..
Malabar, South.	108	G.O. No. 1438, dated 18th May 1914.	Silent Valley	35	..	..	..
The Nilgiris.	475	....	....	..	..	..	
Total ..	475			..	..	..	.
Kollegal ..	730	G.O. No. 652, Rev., dated 11th March 1915.	Addition to Doddasampagai extension first bit.	·009	..		..
..	..	G.O. No. 379, Rev., dated 9th February 1915.	Chikkailuru extension No. I.	·091	..	..	..
..	..	G.O. No. 761, Rev., dated 26th March 1915.	Cowdalli addition No. I ..	·023	..	..	..
Total ..	730			·123	..	..	..
Coimbatore, North.	922	G.O. No. 2548, Rev., dated 2nd September 1914.	South Bargur addition ..	·042	..	..	..
Total.	922			·042	..	..	..
Coimbatore, Central.	353	G.O. No. 374, Rev., dated 9th February 1915.	Survey Nos. 397 and 462 of Sujjalatti village in Modur reserve.	·01	88	..	..
Total ..	353			·01	88	..	..
Coimbatore, South.	454	....	....	..	..	..	..
Total ..	454			..	..	..	..
Grand total.	4,102			36·02 or 36	88	..	..

incurred on, Forest Settlements during 1914–15—*cont.*

Areas undergoing settlement.						
At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing settlement.		Estimate of areas in which settlement operations have not yet commenced.
Name of tract.	Area in square miles.	Name of tract.	Area in square miles.	In forest accounts.	In other accounts.	
(9)	(10)	(11)	(12)	(13)	(14)	(15)
Circle.						
				RS.	RS.	SQ. MLS.
Aletti addition No. 1 ..	·006	Subramanya extension No. I ..	·007	..	..	..
Madibare extension No. I .. Do. No. II ..	·140	....	..	..	..	..
....	..	....	..	..	..	..
....	..	....	..	..	..	..
	·146		·007	..	..	..
....	..	....	..	..	..	..
....	..	....	..	..	..	..
	..	....	..	..	..	..
....	..	....	..	..	..	..
....	..	Snowdon addition	·008	..	..	..
		Benne addition No. III ..	·135	..	..	..
		Do. No. IV ..	·098	..	..	..
		Ammankaval addition No. IV.	·027	..	..	..
		Cherambadi addition No. V ..	·047	..	..	..
		Kalmalai addition	·064	..	..	..
			·379	..	..	..
Hanur addition A	·023	Chikkailuru extension Nos. 3 and 4.	·051	1,202	..	1
Do. B	·001	....	..	..	..	..
Do. C	·006	....	..	..	..	..
Yedaralli addition No. 1 ..	·036	....	..	..	..	..
Do. No. 2 ..	·253	....	..	..	..	..
Do. No. 3 ..	·016	....	..	..	..	..
Do. No. 4 ..	·003	....	..	..	..	..
Do. No. 5 ..	·030	....	..	..	..	..
Do. No. 6 ..	·160	....	..	..	..	..
Chikkailuru extension No. 2.	·006	....	..	..	..	..
Chikkailur addition No. I ..	·103	....	..	..	..	..
	·637		·051	1,202	..	1
Enclosures in South Bargur reserve and its additions.	·160	Enclosures in North Bargur reserve and its additions.	·198	..	..	..
	·16		·198	..	..	..
Anaikattu block, North ..	1·760	Thadagam additions Nos. 2 to 21	·087	199	..	..
Do. South ..	7·360	....	..	..	..	..
Survey Nos. 93A and 93B of Kummarampalayam (enclosures in Gopinari reserve).	·0060	..	.	..	..	..
Sundapatti additions Nos. 2 to 20.	·800	....	..	..	..	..
Addition to Thadagam block No. IV.	·060	....	..	..	..	..
	9·986		·087	199	..	..
Additions to Anamalai reserve.	·08	....	..	2,850	..	..
Additions to Punachi reserve No. II.	·14	....	..	..	..	..
	·22		..	2,850	..	..
	11·14		·72	4,251	..	1

Annual Form No. 67.

Forest Department, Madras Presidency.

Record of demarcation and maintenance of boundaries.

District.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries still to be demarcated at the close of year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year. On new work.	Expenditure on demarcation during the year. On repairs.
	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	RS.	RS.
Northern Circle.									
Ganjām	(b) & (n) 107	(a) 1,094 (o) 36	(p) 127	(q) 1,364	4	(r) 80	(b) & (s) 1,448	(t) 2,450	170
Vizagapatam	..	(a) 530 10	..	540	..	..	540	..	247
Gōdāvari, Upper ..	..	425	..	425	..	143	568	..	899
Do. Lower ..	..	(a) 748 26	10	784	..	52	836	..	(c) 929
Kistna	..	(a) 201 60	308	569	..	41	(f) 610	..	316
Kurnool, East ..	..	(a) 579 108	16	703	..	48	751	..	(d) 210
Do. South ..	..	(a) 25 576	28	629	..	5	634	..	284
Do. West ..	..	(a) 688 56	186	930	..	100	1,030	..	(e) 220
Total ..	107	(a) 3,865 1,297	675	5,944	4	469	6,417	2,450	3,275
Central Circle.									
Bellary	16	..	1,730	1,746	6	..	1,752	830	(g) 591
Anantapur	..	56	1,769	1,825	..	..	1,825	..	1,830
Guntūr	..	111	1,281	1,392	..		1,392	..	937
Cuddapah, West ..	..	27 (a) 540	811	1,378	..	29	1,407	..	(h) 678
Do. East ..	..	97 (a) 485	333	915	..	46	961	..	2,520
Nellore	..	1,794	275	2,069	..	84	2,153	..	1,792
Chingleput	..	188 (a) 716	..	904	..	..	904	..	1,314
Chittoor	..	1,466	4	1,470	..	50	1,520	..	2,711
Total ..	16	3,739 (a) 1,741	6,203	11,699	6	209	11,914	830	12,373
Southern Circle.									
North Vellore ..	..	(a) 1,139	..	1,139	..	7	(i) 1,146	..	9
South do. ..	..	(a) 1,118 28	..	1,146	..	22	(j) 1,168	..	212
South Arcot	..	1,152	..	1,152	..	..	(k) 1,152	..	107
North Salem	7	(a) 1,016	306	1,329	..	40	1,369	325	123
South do.	..	(a) 892 239	12	1,143	..	5	1,148	..	989
Trichinopoly *cum* Tanjore.	..	(a) 936 65	91	1,092	11	24	(l) 1,127	..	605
Madura	48	(a) 998	330	1,376	178	178	1,732	3,405	3
Tinnevelly *cum* Rāmnād.	..	34	470	504	..	14	(m) 518	..	781
Total ..	55	1,518 (a) 6,099	1,209	8,881	189	290	9,360	3,730	2,829

(a) Cleared by Forest subordinates free of cost.
(b) Previous year's figures were incorrect.
(c) Excludes Rs. 711 spent for demarcating felled coupes in the Rajahmundry, Polavaram and Gokavaram Ranges.
(d) Excludes Rs. 75 spent on altering a portion of the boundary line between Dornal and Morricheruvu ranges.
(e) Excludes Rs. 915 spent on cutting the newly-proposed Sivapuram range boundary.
(f) The figure in column 8 differs from that of last year as certain reserves were disafforested during the year.
(g) Includes Rs. 72 being cost of cutting a twelve feet line around sandal reserve.
(h) Includes Rs. 10 spent on cutting and chiselling compartment stones.
(i) Difference due to disafforestation of certain reserves and transfer of a reserve from South Vellore.
(j) Due to transfer of a reserve to North Vellore and correct demarcation of Kapalur reserve.
(k) Difference due to disafforestation of reserves.
(l) Revised figures furnished by the District Forest officer.
(m) Increase due to addition of 30 miles in 1913-14 and omitted to be shown in that year's return.
(n) Excludes 21 miles of boundaries belonging to the Parlakimedi Maliahs.
(o) Do. 414 do. do. do.
(p) Do. 23 do. do. do.
(q) Do. 458 do. do. do.
(r) Do. 14 do. do. do.
(s) Do. 472 do. do. do.
(t) Excludes Rs. 214 spent in Parlakimedi Maliahs.

Record of demarcation and maintenance of boundaries during 1914–15—*cont.*

District.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries still to be demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year. On new work.	Expenditure on demarcation during the year. On repairs.
Western Circle.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	RS.	RS.
South Canara ..	..	117	3,595 (c) −2	3,710	46	124 (c) −3	3,877	(d) 65	1,343
Malabar, North ..	..	162	1,000	1,162	30	36	1,228	..	55
Do. South ..	..	62 (a) 2	64	131	20	55	206	..	24
The Nilgiris	..	2 (a) 16	1,596 (c) −1	1,613	..	299	1,912	..	96 (e) 15 (f) 189
Kollegal	58	5	102 (c) −1	164	240 (c) −2	87	489	977	148
Coimbatore, North ..	1	75 (a) 306	161	543	28	110	681	(g)103	2,760
Do. Central.	9	47 (a) 254	273	583	13	44	640	125	518 (e) 153
Do. South ..	..	7 (b) 2 (a) 114	91	214	..	52	266	..	84
Total ..	68	479 (a) 695	6,878	8,120	375	804	9,299	1,270	5,385
Grand total ..	246	7,033 (a)12,400	14,965	34 644	574	1,772	36,990	8,280	23,862

(a) Cleared by subordinates free of cost.
(b) Frontier boundaries the cost of demarcating which was debited to "Political."
(c) Length of boundaries of forests disafforested.
(d) Cost of preliminary demarcation.
(e) Cost of clearing compartment and coupe lines.
(f) Expenditure on demarcating the new district boundary.
(g) Includes cost of boundaries demarcated in the previous year.

Annual Form No. 69.

Forest Department, Madras Presidency.

Progress made in working-plans during 1914–15.

District.	Areas for which working-plans have been completed and approved by the Board.		Areas for which working-plans are being compiled or have been compiled but not sanctioned.		Areas for which working-plans have still to be taken in hand.	Areas for which working-plans are not at present required.	Total forest area as in form No. 65.	Entire cost per square mile of working-plans completed.	Remarks.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.					
Northern Circle.	SQ. MLS.	SQ. MLS.	SQ. MLS	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.		
Ganjām	(a) 442	..	..	..	197	..	639	..	
Vizagapatam ..	145	..	28	..	73	68	314	..	
Gōdāvari, Upper ..	117	62	..	..	603	..	782	..	
Do. Lower ..	24	..	380	..	..	75	479	..	
Kistna	(b) 149	..	(b) 63	..	..	(b) 59	271	..	
Kurnool, East ..	..	..	..	1,000	..	..	1,000	..	
Do. South ..	686	..	80	..	..	..	766	..	
Do. West ..	469	..	..	..	..	398	867	..	
Total ..	2,032	62	551	1,000	873	600	5,118	..	
Central Circle.									
Bellary	..	..	..	..	682	..	682	..	
Anantapur ..	426	..	..	..	327	..	753	..	
Guntūr	8	..	164	..	642	..	814	..	
Cuddapah, West ..	(c) 39	..	..	69	626	..	734	..	
Do. East ..	103	56	..	38	887	..	1,084	..	
Nellore	58	130	..	13	528	..	729	..	
Chingleput ..	209	..	..	..	.	..	209	..	
Chittoor	791	..	..	..	47	..	838	..	
Total ..	1,634	186	164	120	3,739	..	5,843	..	
Southern Circle.									
Vellore, North	487 + 1 (d) + 3 (e)	..	..	..	(d)	..	491	..	
Do. South	591 + 52 (f) − 3 (g)	60	12	..	..	..	712	..	
Arcot, South ..	155	..	122	..	17	42	(g) 336	..	
Salem, North ..	161	..	677	..	..	..	838	..	
Do. South ..	452	17	110	..	18	2	599	..	
Trichinopoly *cum* Tanjore.	205 (h) —1	..	39	..	(i) 120	1	364	..	
Madura	356	..	..	..	(j) 301	.	657	..	
Tinnevelly *cum* Rāmnād.	246	..	..	..	9	174	429	..	
Total ..	2,705	77	960	..	465	219	4,426	..	

(a) Working-plan for 20 square miles of Mohiri hills was revised during 1914–15.

(b) Excludes the area of certain reserves disafforested during the year.

(c) Reduction due to cancellation of working plans.

(d) Of the 2 square miles shown in column 6 last year 1 square mile was disafforested and 1 square mile transferred to column 2 in rounding off figures.

(e) Represents transfer from South to North Vellore.

(f) Transferred from column 6 of last year as this area of sandalwood plan under revision is covered by working-plan for other produce.

(g) Difference of 1 square mile due to disafforestation; alterations in other columns are revised figures based on classification of forests.

(h) Omitted to be deducted in the last year on account of area disafforested.

(i) Two square miles added during the year and 2 square miles transferred from column 7.

(j) Difference due to recomputation of areas by Special Deputy Collector and disafforestation.

Progress made in working-plans during 1914–15—*cont.*

District.	Areas for which working-plans have been completed and approved by the Board. — At commencement of the year.	Areas for which working-plans have been completed and approved by the Board. — During the year.	Areas for which working-plans are being compiled or have been compiled but not sanctioned. — At commencement of the year.	Areas for which working-plans are being compiled or have been compiled but not sanctioned. — Taken in hand during the year.	Areas for which working-plans have still to be taken in hand.	Areas for which working-plans are not at present required.	Total forest area, as in form No. 65.	Entire cost per square mile of working-plans completed.
				Reserved forests.				
Western Circle.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	
South Canara	589	..	2	49	158	..	798	..
Malabar, North	178	..	53	..	32	..	263	..
Do. South	7	..	..	..	95	37	139	..
The Nilgiris	103	(*a*) 4	..	..	368	..	475	..
Kollegal	53	..	22	..	160	495	730	..
Coimbatore, North ..	289	..	..	..	633	..	922	..
Do. Central ..	220	..	..	..	54	79	353	..
Do. South ..	75	..	..	..	35	317	427	..
Total ..	1,514	4	77	49	1,535	928	4,107	..
				Reserved lands.				
South Canara	..	..	..	..	*	..	*	..
The Nilgiris	..	..	..	..	1	6	7	..
Kollegal	..	..	..	..	..	1	1	..
Coimbatore, North ..	..	..	..	..	*	..	*	..
Do. Central ..	..	..	..	..	10	..	10	..
Do. South ..	..	..	..	..	*	..	*	..
Total ..	..	..	..	..	11	7	18	..
				Leased forests.				
Malabar, South	24	..	..	..	..	..	24	..
The Nilgiris	76	..	..	..	..	..	76	..
Coimbatore, South ..	..	..	..	..	27	..	27	..
Total ..	100	..	..	..	27	..	127	..
Grand total ..	1,614	4	77	49	1,573	935	4,252	..
Grand total, Presidency.	7,985	329	1,752	1,169	6,650	1,754	19,639	..

* Less than one square mile.

(*a*) The difference between this and the area shown in column 4 of last year's return is due to adoption of correct area.

Annual Form No. 70.

Forest Department, Madras Presidency.

Communications and Buildings, 1914–15.

District.	Roads (including bridle-paths and culverts). New works. Length.	Roads. New works. Cost.	Roads. Repairs. Length.	Roads. Repairs. Cost.	Buildings. Cost of new works.	Buildings. Cost of repairs.	Other works. Cost of new works.	Other works. Cost of repairs.
Northern Circle.	M. F. CH.	RS.	M. F. CH.	RS.	RS.	RS.	RS.	RS.
Direction	..	..	..	..	(b) 19	..	..	..
Ganjām	3 6 0	3,771	50 4 0	590 (a) 595	(d) 1,968	(e) 3,098 (a) 1,710	327	1
Vizagapatam ..	..	..	12 5 0	121	164	773 (a) 597	26	19
Gōdāvari, Upper ..	104 7$\frac{9}{10}$ 0	2,601	48 2 0	252	1,037	4,055	871	..
Do. Lower ..	11 0 0	397	82 0 0	2,404	2,700	2,075 (a) 694	45	41
Kistna	10 4 0	2,277	11 6 0	183	161	471	..	151
Kurnool, East ..	60 0 0	2,542	187 0 0	7,962	3,900	785 (a) 812	556	381
Do. South ..	11 4$\frac{7}{10}$ 0	729	50 2 0	7,215	1,943	1,148	139	371
Do. West ..	13 6$\frac{1}{2}$ 0	320	30 3 0	374	1,337	1,347 (a) 424	168	..
Total ..	215 5 $\frac{1}{10}$	12,637	472 6 0	19,696	13,229	17,987	2,132	964
Central Circle.								
Bellary	..	..	14 4 7$\frac{1}{2}$	795	506	1,160	40	119
Add cost of establishment.						8		
Anantapur	0 1 0	65	15 7 0	896	4,318	1,005	869	411
Add cost of establishment				313	..	915		
						* + 3		
Guntūr	..	..	4 0 0	39	705	402	..	76
Add cost of establishment.						* + 854		
Cuddapah, West ..	..	..	10 0 0	308	1,599	488	..	..
Add cost of establishment						663		
						* − 1		
Do. East ..	51 3 5$\frac{1}{4}$	5,899	79 4 3	1,947	12,268	682	54	253
				* − 92	..	* − 1		
Add cost of establishment.						432		
Nellore	19 6 0	● 1,663	..	..	2,162	658	454	1
		* + 6				* + 584	* − 42	
Chingleput	..	..	13 4 0	1,272	939	930	..	54
						* − 1		
Chittoor	13 2 6	2,348	19 4 0	211	325	602	350	35
						* − 1		+ 1
Add cost of establishment.						1,306		
Total ..	84 5 1$\frac{1}{4}$	9 981	157 0 $\frac{1}{2}$	5,689	22,822	10,688	1,725	950
Southern Circle.								
Vellore, North ..	5 0 0	1,123	36 0 0	2,494	2,549	620 + (c) 222	45	122
Do. South ..	4 0 0	622	35 0 0	3,518	2,463	1,782 + (c) 548	460	66
Arcot, South	7 0 0	429	..		1,333	211 + (c) 275	80	..
Salem, North ..	8 0 0	992	124 0 0	1,894	4,369	932 + (c) 217	414	298
Do. South ..	22 0 0	2,961	29 0 0	2,371	7,359	736 + (c) 585	460	45
Trichinopoly ..	..	..	124 0 0	2,792	4,825	816 + (c) 663	..	80
Madura	3 0 0	106	145 0 0	8,258	3,941	1,114 + (c) 1,061	863	..
Tinnevelly	..	..	93 0 0	2,353	5,638	1,318	437	445
Total ..	49 0 0	6,233	586 0 0	23,680	32,477	11,100	2,759	1,056

* Variations as per audited figures.

(a) Establishment charges. (b) Wrongly adjusted to buildings. (c) Represents pay of establishment.
(d) Excludes Rs. 325 spent in building a combined range office and quarters in the Parlākimedi Maliahs.
(e) Excludes Rs 63 spent on repairs in the Parlākimedi Maliahs.

Communications and Buildings, 1914-15—*cont.*

District.	Roads (including bridle-paths and culverts). New works. Length.	Roads. New works. Cost.	Roads. Repairs. Length.	Roads. Repairs. Cost.	Buildings. Cost of new works.	Buildings. Cost of repairs.	Other works. Cost of new works.	Other works. Cost of repairs.
Western Circle.	M. F.	RS.	M. F.	RS.	RS.	RS.	RS.	RS.
South Canara	8 6	1,563	20 6	1,342	4,315	263 * 200	657	16
Malabar, North	20 6	1,685	90 1	3,631	2,088	3,352 * 562	1,756	440
Do. South	6 0	407	74 1	3,120	5,216	1,436	1,089	152
The Nilgiris	13 0	7,880	48 4	2,100	914	1,357	820	15
Kollegal	26 4	1,652	37 0	1,387 * 192	1,684	499 * 338	1,072	..
Coimbatore, North ..	9 0	7,411	43 0	3,394	9,483	296 * 474	1,023	880
Do. Central .	(*a*) 6 0	92	38 0	2,865	2,344	600 * 38 † — 45	..	134
Do. South ..	8 5	4,465	27 6	3,829 * 288	4,755	980 * 315	30	97
Direction	..	..	..	..	..	2	..	..
Total ..	98 5	25,155	379 2	22,148	30,799	10,667	6,447	1,734
Grand total, Presidency.	448	54,006	1,595	71,213	99,327	50,442	13,063	4,704

* Cost of establishment. † Cash recovery of service payments.

(*a*) Length of a new road traced.

ANNUAL

Forest Department,

REGISTER of Breaches of

District. (1)		Cases pending from 1913–14. (2)	New cases of the year. Injury to forest by fire. (3)	Un-authorized felling or appropriation of wood and minor forest produce. (4)	Grazing without permission or in tracts in which grazing is prohibited. (5)	Other offences. (6)	Total new cases of the year. (7)	Total cases. (8)
NORTHERN								
Ganjam ..	A	(a) 10	1	48	5	1	55	65
	B	(a) 67	..	335	37	2	374	441
	C	..	92	30	..	..	122	..
	Total ..	(b) 77	(c) 93	(d) 413	(e) 42	(f) 3	(g) 551	(h) 506
Vizagapatam ..	A	(a) 12	2	57	4	14	77	89
	B	(a) 33	..	207	47	19	273	306
	C	..	24	1	..	..	25	..
	Total ..	45	26	265	51	33	375	395
Gōdāvari, Upper.	A	..	..	..	..	..	..	..
	B	22	..	53	8	11	72	94
	C	..	30	..	..	..	30	..
	Total ..	22	30	53	8	11	102	94
Gōdāvari, Lower.	A	(a) 34	2	33	11	7	53	87
	B	(a) 69	4	152	58	46	260	329
	C	..	..	1	..	..	1	..
	Total ..	103	6	186	69	53	314	416
Kistna ..	A	(a) 22	2	36	51	3	92	114
	B	(a) 52	..	186	100	6	292	344
	C	..	..	8	16	..	24	..
	Total ..	74	2	230	167	9	408	458
Kurnool, East ..	A	23	..	15	24	5	44	67
	B	46	..	213	161	10	384	430
	C	..	..	17	1	..	18	..
	Total ..	69	..	245	186	15	446	497
Kurnool, South ..	A	(a) 61	1	115	37	16	169	230
	B	(a) 37	1	234	121	22	378	415
	C	..	42	71	7	2	122	..
	Total ..	98	44	420	165	40	669	645

A = Cases taken into Court.
B = Cases compounded by the District Forest Officer or Revenue Divisional Officer.
C = Cases undetected.

(a) The variations between the closing balances of 1913-14 and the opening balances of 1914-15 are due to transfer of cases between A and B.
(b) Excludes 57 cases belonging to the Parlakimedi Maliahs.
(c) Do. 3 do.
(d) Do. 221 do.
(e) Do. 11 do.
(f) Do. 7 do.
(g) Do. 242 do.
(h) Do. 299 do.

Form No. 71.

Madras Presidency.

Forest Rules during 1914–15.

Disposed of during the year.						Cases pending at close of the year.
Convictions.		Acquittals.		Total.		
Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(9)	(10)	(11)	(12)	(13)	(14)	(15)
CIRCLE.						
37	137	10	32	47	169	18
..	.	303	1,165	303 * 75	1,165 1,281	63
..	..	..	..	..	..	..
(i) 37	(j) 137	(k) 313	(l) 1,197	(m) 350 * 75	(n) 1,334 1,281	(o) 81
66	208	11	37	77 * 3	245 2	9
..	..	231	438	231 * 26	438 26	49
..	..	..	..	..	..	..
66	208	242	475	308 * 29	683 28	58
..	..	..	..	..	.	..
..	..	62	141	62 * 20	141 62	12
..	..	..	..	.	..	..
..	..	62	141	62 * 20	141 62	12
56	163	12	34	68	197	19
..	..	244	546	244 * 35	546 101	50
..	..	..	..	..	..	..
56	163	256	580	312 * 35	743 101	69
94	263	6	17	100	280	14
..	..	221	425	221 * 57	425 198	66
..	..	..	..	..	..	..
94	263	227	442	321 * 57	705 198	80
46	193	12	27	58	220	9
..	..	336	859	336 * 22	859 69	72
..	..	..	..	..	..	..
46	193	348	886	394 * 22	1,079 69	81
196	770	5	8	201	778	29
..	..	312	875	312 * 70 (p) 2	875 233	31
..	..	..	..	..	..	..
196	770	317	883	513 * 70 (p) 2	1,653 233	60

* Cases withdrawn under the orders of the District Forest Officer or Revenue Divisional Officer.

(i) Excludes 204 cases belonging to the Parlākimedi Maliahs, of which 137 cases were compounded by the Special Forest Officer and 67 cases ended in conviction in the Courts.

(j) Excludes 349 persons concerned in the 204 cases referred to in the Parlākimedi Maliahs.

(k) Excludes 19 cases belonging to the Parlakimedi Maliahs, of which 1 case was acquitted by the Court and 18 cases were withdrawn by the Special Forest Officer.

(l) Excludes 31 persons concerned in 19 cases belonging to the Parlākimedi Maliahs.

(m) Excludes 223 cases belonging to the Parlākimedi Maliahs.

(n) Do. 380 persons concerned in 223 cases belonging to the Parlakimedi Maliahs.

(o) Do. 76 cases belonging to the Parlākimedi Maliahs.

(p) Cases transferred to West Kurnool and Cuddapah.

Register of Breaches of

District. (1)		Cases pending from 1913-14. (2)	New cases of the year. Injury to forests by fire. (3)	Un-authorized felling or appropriation of wood and minor forest produce. (4)	Grazing without permission or in tracts in which grazing is prohibited. (5)	Other offences. (6)	Total new cases of the year. (7)	Total cases. (8)
								NORTHERN
Kurnool, West	A	(a) 90	..	158	62	17	237	327
	B	(a) 96	..	432	174	16	622	718
	C	..	101	55	10	1	167	..
	Total	186	101	645	246	34	1,026	1,045
Total	A	252	8	462	194	63	727	979
	B	422	5	1,812	706	132	2,655	3,077
	C	..	289	183	34	3	509	..
	Grand Total	674	302	2,457	934	198	3,891	4,056
								CENTRAL
Bellary	A	9	..	71	18	13	102	111
	B	210	1	365	502	47	915	1,125
	C	..	..	1	30	..	31	..
	Total	219	1	437	550	60	1,048	1,236
Anantapur	A	138	..	239	62	14	315	453
	B	..	..	430	150	10	590	590
	C	..	71	50	263	..	384	..
	Total	138	71	719	475	24	1,289	1,043
Guntūr	A	244	..	133	199	16	348	592
	B	111	..	657	662	44	1,363	1,474
	C	..	..	58	..	2	60	..
	Total	355	..	848	861	62	1,771	2,066
Cuddapah, West	A	47	1	254	123	19	397	444
	B	216	1	339	114	32	486	702
	C	..	..	2	2	..	4	..
	Total	263	2	595	239	51	887	1,146
Cuddapah, East	A	(a) 62	1	123	39	5	168	230
	B	(a) 68	..	529	171	8	708	776
	C	..	..	3	..	..	3	..
	Total	130	1	655	210	13	879	1,006
Nellore	A	(a) 73	..	171	273	20	464	537
	B	(a) 240	1	562	634	14	1,211	1,451
	C	..	9	147	..	..	156	..
	Total	313	10	880	907	34	1,831	1,988

A = Cases taken into Court.
B = Cases compounded by District Forest Officer or Revenue Divisional Officer.
C = Cases undetected.

(a) Variations between the closing balance of 1913-14 and the opening balance of 1914-15 are due to transfer of cases between A and B.

Forest Rules during 1914–15—*cont.*

Disposed of during the year.						Cases pending at close of the year.
Convictions.		Acquittals.		Total.		
Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(9)	(10)	(11)	(12)	(13)	(14)	(15)
CIRCLE—*cont.*						
263	733	32	188	295 * 1	921 5	31
..	..	621	1,527	621 * 13	1,527 22	84
..	..	..	..	..	..	..
263	733	653	1,715	916 * 14	2,448 27	115
758	2,467	88	343	846 * 4	2,810 7	129
..	..	2,330	5,976	2,330 * 318 (*b*) 2	5,976 1,992	427
..	..	..	..	..	..	..
758	2,467	2,418	6,319	3,176 * 322 (*b*) 2	8,786 1,999	556
CIRCLE.						
85	194	17	66	102	260	9
924	2,175	..	..	924 * 49	2,175 106	152
..	..	..	..		..	..
1,009	2,369	17	66	1,026 * 49	2,435 106	161
221	506	103	269	324	775	129
502	1,073	..	..	502	1,073	88
..	..	..	..	..	..	..
723	1,579	103	269	826	1,848	217
399	1,587	5	30	404	1,617	188
1,068	3,256	..	..	1,068 * 56	3,256 138	350
..	..	..	..	..	..	..
1,467	4,843	5	30	1,472 * 56	4,873 138	538
289	955	13	40	302	995	142
539	1,105	..	..	539 * 56	1,105 183	107
..	..	..	..	..	..	..
828	2,060	13	40	841 * 56	2,100 183	249
210	474	15	61	225	535	5
582	1,381	..	..	582 * 58	1,381 151	136
..	..	..	..		..	..
792	1,855	15	61	807 * 58	1,916 151	141
401	1,414	42	181	443	1,595	94
1,115	2,245	..	..	1,115 * 40	2,245 186	296
..	..	..	..	..	..	..
1,516	3,659	42	181	1,558 * 40	3,840 186	390

* Cases withdrawn under the orders of the District Forest Officer or Revenue Divisional Officer.
(*b*) Cases transferred to West Kurnool to Cuddapah.

Register of Breaches of

District.		Cases pending from 1913-14.	New cases of the year. Injury to forest by fire.	New cases of the year. Unauthorized felling or appropriation of wood and minor forest produce.	New cases of the year. Grazing without permission or in tracts in which grazing is prohibited.	New cases of the year. Other offences.	New cases of the year. Total new cases of the year.	Total cases.
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)
								CENTRAL
Chingleput	A	16	..	161	93	13	267	283
	B	127	..	830	623	31	1,484	1,611
	C	..	2	5	2	..	9	..
	Total	143	2	996	718	44	1,760	1,894
Chittoor	A	(a) 79	..	99	90	21	210	289
	B	(a) 102	..	728	479	23	1,230	1,332
	C	..	41	..	..	..	41	..
	Total	181	41	827	569	44	1,481	1,621
Total	A	(a) 668	2	1,251	897	121	2,271	2,939
	B	(a) 1,074	3	4,440	3,335	209	7,987	9,061
	C	..	123	266	297	2	688	..
Grand Total		1,742	128	5,957	4,529	332	10,946	12,000
								SOUTHERN
North Vellore	A	85	1	90	84	14	189	274
	B	227	..	1,040	435	24	1,499	1,726
	C	..	34	..	14	..	48	..
	Total	312	35	1,130	533	38	1,736	2,000
South Vellore	A	38 + 62	..	264	78	22	364	464
	B	252 — 62	..	813	336	216	1,365	1,555
	C	..	42	29	..	37	108	..
	Total	290	42	1,106	414	275	1,837	2,019
South Arcot	A	81 + 187	..	576	323	20	919	1,187
	B	499 — 187	..	1,215	579	10	1,804	2,116
	C	..	7	87	..	..	94	..
	Total	580	7	1,878	902	30	2,817	3,303
North Salem	A	36 + 46	1	263	53	11	328	410
	B	203 — 46	..	874	248	50	1,172	1,329
	C	..	42	4	..	..	46	..
	Total	239	43	1,141	301	61	1,546	1,739
South Salem	A	66	..	209	47	19	275	341
	B	144	..	445	167	83	695	839
	C	..	23	37	..	..	60	..
	Total	210	23	691	214	102	1,030	1,180

A = Cases taken to Court.
B = Cases compounded by District Forest Officer or Revenue Divisional Officer.
C = Cases undetected.

Note (Southern Circle).—Alterations in column 2 represent transfer between A and B.

(a) Variations between the closing balance of 1913-14 and the opening balance of 1914-15 are due to transfer of cases between the heads A and B.

Forest Rules during 1914-15—*cont.*

Disposed of during the year.						Cases pending at close of the year.
Convictions.		Acquittals.		Total.		
Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(9)	(10)	(11)	(12)	(13)	(14)	(15)
CIRCLE—*cont.*						
259	451	12	18	271	469	12
1,406	1,749	..	..	1,406	1,749	143
				* 62	147	
..	..	..	..	..	..	..
1,665	2,200	12	18	1,677	2,218	155
				* 62	147	
249	620	19	90	268	710	21
1,072	1,606	..	..	1,072	1,606	146
				* 114	270	
..	..	..	.	..	..	..
1,321	2,226	19	90	1,340	2,316	167
				* 114	270	
2,113	6,201	226	755	2,339	6,956	600
7,208	14,590	..	..	7,208	14,590	1,418
				* 435	1,181	
..	..	..	..	..	..	..
9,321	20,791	226	755	9,547	21,546	2,018
				* 435	1,181	
CIRCLE.						
164	386	22	51	186	437	74
				* 14	33	
1,376	2,807	..	..	1,376	2,807	226
				* 124	172	
..	..	..	..	..	..	..
1,540	3,193	22	51	1,562	3,244	300
				* 138	205	
329	912	16	44	345	956	118
				* 1	2	
997	2,023	..	..	997	2,023	238
				* 320	509	
..	..	..	..	..	..	..
1,326	2,935	16	44	1,342	2,979	356
				* 321	511	
970	2,413	18	45	988	2,458	75
				* 124	338	
1,622	2,914	..	..	1,622	2,914	440
				* 54	130	
..	..	..	..	..	..	..
2,592	5,327	18	45	2,610	5,372	515
				* 178	468	
385	779	6	14	391	793	19
964	1,611	..	..	964	1,611	270
				* 95	197	
..	..	..	..	..	..	..
1,349	2,390	6	14	1,355	2,404	289
				* 95	197	
219	907	10	44	229	951	112
621	1,363	..	..	621	1,363	171
				* 47	156	
..	..	..	..	..	..	..
840	2,270	10	44	850	2,314	283
				* 47	156	

* Cases withdrawn under the orders of the District Forest Officer or Revenue Divisional Officer.

Register of Breaches of

Southern

District. (1)		Cases pending from 1913-14. (2)	New cases of the year. Injury to forests by fire. (3)	Un-authorized felling or appropriation of wood and minor forest produce. (4)	Grazing without permission or in tracts in which grazing is prohibited. (5)	Other offences. (6)	Total new cases of the year. (7)	Total cases. (8)
Trichinopoly	A	36 + 2	1	50	29	7	87	125
	B	310 − 2	..	2,019	376	64	2,459	2,767
	C	..	9	16	2	..	27	..
	Total	346	10	2,085	407	71	2,573	2,892
Madura	A	74	1	315	108	31	455	529
	B	564	..	1,050	297	34	1,381	1,945
	C	..	62	19	..	..	81	..
	Total	638	63	1,384	405	65	1,917	2,474
Tinnevelly	A	22	2	169	56	6	233	255
	B	177	..	463	159	32	654	831
	C	..	24	44	..	..	68	..
	Total	199	26	676	215	38	955	1,086
Total, Southern Circle.	A	735	6	1,936	778	130	2,850	3,585
	B	2,079	..	7,919	2,597	513	11,029	13,108
	C	..	243	236	16	37	532	..
	Grand Total	2,814	249	10,091	3,391	680	14,411	16,693

Western

District. (1)		Cases pending from 1913-14. (2)	Injury to forests by fire. (3)	Un-authorized felling or appropriation of wood and minor forest produce. (4)	Grazing without permission or in tracts in which grazing is prohibited. (5)	Other offences. (6)	Total new cases of the year. (7)	Total cases. (8)
South Canara	A	(a) 29	4	109	17	32	162	191
	B	(a) 206	49	863	108	129	1,149	1,355
	C	..	57	..	..	..	57	..
	Total	235	110	972	125	161	1,368	1,546
Malabar, North	A	1	..	..	..	2	2	3
	B	..	5	15	3	5	28	28
	C	..	1	..	..	..	1	..
	Total	1	6	15	3	7	31	31
Malabar, South.	A	1	..	4	..	2	6	7
	B	1	..	6	20	15	41	42
	C	..	2	2	..	..	4	..
	Total	2	2	12	20	17	51	49
The Nilgiris	A	7	1	26	23	9	59	66
	B	6	..	77	112	18	207	213
	C	..	11	..	..	..	11	..
	Total	13	12	103	135	27	277	279

A = Cases taken into Court.
B = Cases compounded by District Forest Officer or Revenue Divisional Officer.
C = Cases undetected.

(*a*) Variations between the closing balance of 1913-14 and the opening balance of 1914-15 are due to transfer of cases between A and B.

Note (Southern Circle).—Alterations in column 2 represent transfers between A and B.

Forest Rules during 1914–15 —*cont.*

Disposed of during the year.						
Convictions.		Acquittals.		Total.		Cases pending at close of the year.
Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(9)	(10)	(11)	(12)	(13)	(14)	(15)
CIRCLE—*cont.*						
60	163	30	155	90	318	35
1,974	3,232	..	..	1,974	3,232	501
				* 292	477	
..	..	..	..	..	..	..
2,034	3,395	30	155	2,064	3,550	536
				* 292	477	
349	1,535	52	229	401	1,764	128
1,390	3,982	..	..	1,390	3,982	446
				* 109	424	
..	..	..	..	..	..	..
1,739	5,517	52	229	1,791	5,746	574
				* 109	424	
236	691	4	7	240	698	15
713	1,711	..	..	713	1,711	118
..	..	..	..	..	..	..
949	2,402	4	7	953	2,409	133
2,712	7,786	158	589	2,870	8,375	576
				* 139	373	
9,657	19,643	..	..	9,657	19,643	2,410
				* 1,041	2,065	
..	..	..	..	..	..	..
12,369	27,429	158	589	12,527	28,018	2,986
				* 1,180	2,438	
CIRCLE.						
154	375	18	31	172	406	19
982	1,994	..	..	982	1,994	259
				* 114	229	
..	..	..	..	..	..	..
1,136	2,369	18	31	1,154	2,400	278
				* 114	229	
2	4	..	..	2	4	1
15	17	..	..	15	17	8
				* 5	16	
..	..	..	..	..	..	..
17	21	..	..	17	21	9
				* 5	16	
3	4	1	2	4	6	2
				* 1	2	
39	69	..	..	39	69	..
				* 3	3	
..	..	..	..	..	..	..
42	73	1	2	43	75	2
				* 4	5	
52	146	6	15	58	161	8
118	280	..	..	118	280	44
				* 51	106	
..	..	..	..	..	..	..
170	426	6	15	176	441	52
				* 51	106	

* Cases withdrawn under the orders of the District Forest Officer or Revenue Divisional Officer.

Register of Breaches of

District.		Cases pending from 1913-14.	New cases of the year.					Total cases.
			Injury to forest by fire.	Un-authorized felling or appropria-tion of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)
WESTERN								
Kollegal ..	A	(a) 28	..	24	16	2	42	70
	B	(a) 33	..	80	58	2	140	173
	C	..	15	14	15	2	46	..
	Total ..	61	15	118	89	6	228	243
Coimbatore, North.	A	27	4	68	42	5	119	146
	B	37	..	201	81	12	294	331
	C	..	23	..	..	..	23	..
	Total ..	64	27	269	123	17	436	477
Coimbatore, Central.	A	30	2	110	41	20	173	203
	B	65	..	270	68	46	384	449
	C	..	8	6	..	..	14	..
	Total ..	95	10	386	109	66	571	652
Coimbatore, South.	A	17	..	79	13	3	95	112
	B	22	..	181	24	6	211	233
	C	..	16	9	..	..	25	..
	Total ..	39	16	269	37	9	331	345
Grand total	A	140	11	420	152	75	658	798
	B	370	54	1,693	474	233	2,454	2,824
	C	..	133	31	15	2	181	..
	Total ..	510	198	2,144	641	310	3,293	3,622
Total	A	1,795	27	4,069	2,021	389	6,506	8,301
	B	3,945	62	15,864	7,112	1,087	24,125	28,070
	C	..	788	716	362	44	1,910	..
Grand total, Presidency ..		5,740	877	20,649	9,495	1,520	32,541	36,371

A = Cases taken into Court. B = Cases compounded. C = Cases undetected.

(a) The variations between the closing balance of 1913–14.

* Cases withdrawn under the orders of the District Forest Officer or Revenue Divisional Officer.

Forest Rules during 1914–15—*cont.*

Disposed of during the year.						Cases pending at close of year.
Convictions.		Acquittals.		Total.		
Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(9)	(10)	(11)	(12)	(13)	(14)	(15)
CIRCLE—*cont.*						
56	165	8	35	64	200	6
140	327	..	..	140 * 6	327 9	27
..	..	..	..	..	..	..
196	492	8	35	204 * 6	527 9	33
103	265	3	13	106	278	40
241	606	..	..	241 * 31	606 89	59
..	..	..	..	..	..	..
344	871	3	13	347 * 31	884 89	99
163	487	14	59	177	546	26
335	730	..	..	335 * 32	730 71	82
..	..	..	..	..	..	..
498	1,217	14	59	512 * 32	1,276 71	108
91	328	8	35	99	363	13
171	461	..	..	171 * 16	461 32	46
..	..	..	..	..	..	..
262	789	8	35	270 * 16	824 32	59
624	1,774	58	190	682 * 1	1,964 2	115
2,041	4,484	..	..	2,041 * 258	4,484 555	525
..	..	..	..	..	..	..
2,665	6,258	58	190	2,723 * 259	6,448 557	640
6,207	18,228	530	1,877	6,737 * 144	20,105 382	1,420
..	..	21,236	44,693	21,236 * 2,054	44,693 5,800	4,780
..	..	..	..	..	..	..
6,207	18,228	21,766	46,570	27,973 * 2,198	64,798 6,182	6,200

ANNUAL FORM No. 72.

Forest Department, Madras Presidency.

AREA of forest tracts protected from fire during 1914–15.

District.	Forest tracts.	Area protected during the previous year.	During the year under report. Area attempted to be protected.	Fires.	Actually protected.	Cost during the year under report.	Remarks.
	Northern Circle.	ACS.	ACS.	ACS.	ACS.	RS.	
Ganjām ..	Special protection ..	99,464	102,537	130	102,407	4,463	
	General do. ..	38,054	38,538	1,044	37,494	1,242	
	Total, Ganjām ..	(*d*)137,518	(*e*) 141,075	(*f*) 1,174	(*g*)139,901	(*h*) 5,705	
Vizagapatam.	Special protection ..	67,984	68,191	3,320	64,871	1,812	
	General do. ..	107,216	123,302	8,831	114,471	258	
	Total, Vizagapatam ..	175,200	191,493	12,151	179,342	2,070	
Gōdāvari, Upper.	Special protection ..	379,957	532,793	63,979	468,814	6,999	
	General do. ..	..	..	..	..	..	
	Total, Gōdāvari, Upper..	379,957	532,793	63,979	468,814	6,999	
Gōdāvari, Lower.	Special protection ..	..	..	..	..	4,440	
	General do. ..	228,723	240,870	1,331	239,539	..	
	Total, Gōdāvari, Lower..	228,723	240,870	1,331	239,539	4,440	
Kistna ..	Special protection ..	58,564	60,229	33	60,196	1,246	
	General do. ..	..	..	..	..	..	
	Total, Kistna ..	58,564	60,229	33	60,196	1,246	
Kurnool, East.	Special protection ..	86,813	151,235	15,144	136,091	13,185	
	General do. ..	534,924	489,067	1,739	487,328	..	
	Total, Kurnool, East ..	621,737	640,302	16,883	623,419	13,185	
Kurnool, South.	Special protection ..	(*a*)171,926	334,148	78,213	255,935	13,639	
	General do. ..	(*a*)275,068	156,316	4,630	151,686	..	
	Total, Kurnool, South ..	446,994	490,464	82,843	407,621	13,639	
Kurnool, West.	Special protection ..	81,365	155,648	5,921	149,727	17,989	
	General do. ..	(*b*) 351,617	393,472	41,464	352,008	..	
	Total, Kurnool, West ..	432,982	549,120	47,385	501,735	17,989	
Total ..	Special protection ..	946,073	1,404,781	166,740	1,238,041	63,773	
	General do. ..	1,535,602	1,441,565	59,039	1,382,526	1,500	
	Grand total ..	2,481,675	2846,346	225,779	2,620,567	65,273	
	Central Circle.						
Bellary ..	Special protection ..	50,689	95,250	4,932	90,318	6,869	
	General do. ..	2,274	1,069	350	719	..	
	Total ..	52,963	96,319	5,282	91,037	6,869	
Anantapur ..	Special protection ..	379,811	420,314	9,980	410,334	7,015	
	General do. ..	..	52,460	38	52,422	..	
	Total ..	379,811	472,774	10,018	462,756	7,015	
Guntūr ..	Special protection ..	13,084	13,334	50	13,284	15	
	General do. ..	20,940	21,203	2	21,201	(*c*) + 5 60	
	Total ..	34,024	34,537	52	34,485	80	
Cuddapah, West.	Special protection ..	238,555	254,939	55,238	199,701	3,207	
	General do. ..	85,074	87,697	4,569	83,128	(*c*) + 281 630	
	Total ..	323,629	342,636	59,807	282,829	4,118	

(*a*) The differences between the closing balances of last year and opening balance of the current year are due to transfer of 10,919 acres from special to general protection.
(*b*) Last year's figure given in column 7 is incorrect and the correct one is now adopted.
(*c*) Added or deducted as per audited figure.
(*d*) Excludes 71,006 acres belonging to the Parlakimedi Maliahs.
(*e*) Do. 91,014 do. do.
(*f*) Do. 1,612 do. do.
(*g*) Do. 89,402 do. do.
(*h*) Do. Rs. 437 spent on fire protection operations in the Parlakimedi Malaiahs.

Area of forest tracts protected from fire during 1914-15—*cont.*

District.	Forest tracts	Area protected during the previous year.	During the year under report. Area attempted to be protected.	Fires.	Actually protected.	Cost during the year under report.	Remarks.
	Central Circle—cont.	ACS.	ACS.	ACS.	ACS.	RS.	
Cuddapah, East.	Special protection ..	273,653	98,981	5,652	93,329	3,702	
	General do. ..	123,758	330,654	70,196	260,458	..	
	Total ..	397,411	429,635	75,848	353,787	3,702	
Nellore ..	Special protection ..	128,698	129,124	617	128,507	1,605	
	General do. ..	..	..	..	..	..	
	Total ..	128,698	129,124	617	128,507	1,605	
Chingleput ..	Special protection ..	25,649	25,857	352	25,505	957	
	General do. ..	108,122	107,607	5	107,602	..	
	Total ..	133,771	133,464	357	133,107	957	
Chittoor ..	Special protection ..	132,012	136,837	1,022	135,815	1,724	
	General do. ..	351,660	336,036	3,821	332,215	(*a*) — 1	
	Total ..	483,672	472,873	4,843	468,030	1,723	
Total ..	Special protection ..	1,242,151	1,174,636	77,843	1,096,793	25,094 (*a*) + 285	
	General do. ..	691,828	936,726	78,981	857,745	690	
	Grand Total ..	1,933,979	2,111,362	156,824	1,954,538	26,069	
	Southern Circle.						
Vellore, North.	Special protection ..	57,334	50,922	1,058	49,864	725	
	General do. ..	255,498	279,452	1,159	278,293	..	
	Total ..	312,832	330,374	2,217	328,157	725	
Vellore, South.	Special protection ..	141,545	122,587	372	122,215	2,330	
	General do. ..	308,264	322,365	1,343	321,022	..	
	Total ..	449,809	444,952	1,715	443,237	2,330	
South Arcot.	Special protection ..	13,541	13,541	..	13,541	186	
	General do. ..	201,962	201,281	9	201,272	..	
	Total ..	215,503	214,822	9	214,813	186	
Salem, North	Special protection ..	63,723	65,562	3,366	62,196	3,227	
	General do. ..	459,522	471,102	1,536	469,566		
	Total ..	523,245	536,664	4,902	531,762	3,227	
Salem, South	Special protection ..	227,123	217,269	382	216,887	2,270	
	General do. ..	155,166	154,412	307	154,105	..	
	Total ..	382,289	371,681	689	370,992	2,270	
Trichinopoly.	Special protection ..	22,184	22,199	106	22,093	530	
	General do. ..	81,616	81,626	(*b*) 30	81,596	345	
	Total ..	103,800	103,825	136	103,689	875	
Madura ..	Special protection ..	(*c*)168,056	127,242	1,324	125,918	4,336	
	General do. ..	(*c*)246,989	291,132	2,282	288,850	..	
	Total ..	415,045	418,374	3,606	414,768	4,336	
Tinnevelly	Special protection ..	31,297	35,377	5,111	30,266	5,444	
	General do. ..	202,079	206,712	2,320	204,392	..	
	Total ..	233,376	242,089	7,431	234,658	5,444	
	Total, Special protection.	724,803	654,699	11,719	642,980	19,048	
	Total, General protection.	1,911,096	2,008,082	8,986	1,999,096	345	
	Grand total (Special and General).	2,635,899	2,662,781	20,705	2,642,076	19,393	

(*a*) Added or deducted as per audited figure.
(*b*) Excludes 10 acres burnt in areas not brought under protection.
(*c*) Revised and correct figures furnished by the Collector.

Area of forest tracts protected from fire during 1914-15—*cont.*

District.	Forest tracts.	Area protected during the previous year.	During the year under report. Area attempted to be protected.	Fires.	Actually protected.	Cost during the year under report.	Remarks
	Western Circle.	ACS.	ACS.	ACS.	ACS.	RS.	RS.
South Canara.	Special protection ..	134,604	142,561	514	142,047	2,642 * + 729	* Fire-tracing Mysore-South Canara boundary. 698
	General do. ..	369,180	368,185	1,292	366,893	1,049	Fire-tracing cart-stands, etc. .. 18
	Total ..	503,784	510,746	1,806	508,940	4,420	Cost of previous year disbursed during the year .. 18
							Total .. 729
Malabar, North.	Special protection ..	131,434	139,089	49	139,040	7,454	
	General do. ..	..	..	..	..	..	
	Total ..	131,434	139,089	49	139,040	7,454	
Malabar, South.	Special protection ..	79,444	82,117	10	82,107	2,738 † + 15	† Cost of putting out a fire in an unprotected area.
	General do. ..	..	..	..	..	..	
	Total ..	79,444	82,117	10	82,107	2,753	
The Nilgiris.	Special protection ..	58,472	74,530	177	74,353	3,758	
	General do. ..	..	..	..	..	..	
	Total ..	58,472	74,530	177	74,353	3,758	
Kollegal ..	Special protection ..	37,685	67,717	3,327	64,390	3,059	
	General do. ..	323,565	399,490	7,031	392,459	..	
	Total ..	361,250	467,207	10,358	456,849	3,059	
Coimbatore, North.	Special protection ..	64,849	72,484	850	71,634	3,223	
	General do. ..	494,836	517,494	8,231	509,263	..	
	Total ..	559,685	589,978	9,081	580,897	3,223	
Coimbatore, Central.	Special protection ..	104,696	105,122	147	104,975	2,384 (*a*) + 19 (*b*) — 32	(*a*) Cost of previous year disbursed during the year.
	General do. ..	120,330	120,841	111	120,730	..	
	Total ..	225,026	225,963	258	225,705	2,371	
Coimbatore, South.	Special protection ..	42,614	45,737	237	45,500	2,328	(*b*) Cash recovery of service payments.
	General do. ..	181,000	182,540	6,940	175,600	..	
	Total ..	223,614	228,277	7,177	221,100	2,328	
	Total, Special, Western Circle.	653,798	729,357	5,311	724,046	27,586 + 731	
	Total, General, Western Circle.	1,488,911	1,588,550	23,605	1,564,945	1,049	
	Grand total ..	2,142,709	2,317,907	28,916	2,288,991	29,366	
	Total, Special protection.	3,567,525	3,963,473	2,61,613	3,701,860	1,36,517	
	Total, General protection.	5,627,437	5,974,923	1,70,611	5,804,312	3,584	
	Grand total, Presidency ..	9,194,962	9,938,396	4,32,224	9,506,172	1,40,101	

Annual Form No. 73.

Forest Department, Madras Presidency.

Area closed and open to grazing during 1914–15.

District.	Area in square miles.						
	Closed to all animals.		Closed to both goats and sheep.		Area closed to goats only.	Open to all animals.	Total forest area as per form No. 65.
	Whole year.	Part of year.	Whole year.	Part of year.		Whole year.	
	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Northern Circle.							
Reserved forests.							
Ganjām	82	..	..	..	(c) 487	..	569
Vizagapatam	15	..	2	..	294	..	311
Gōdāvari, Upper	2	..	..	..	426	..	428
Do. Lower	43	..	229	..	132	..	404
Kistna	58	..	..	..	213	..	271
Kurnool, East	157	..	..	..	843	..	1,000
Do. South	566	..	..	..	200	..	766
Do. West	240	..	..	..	627	..	867
Total ..	1,163	..	231	..	3,222	..	4,616
Reserved lands.							
Ganjām	..	..	..	..	70	..	70
Vizagapatam	..	..	..	..	3	..	(a) 3
Godavari, Upper	..	..	..	..	354	..	354
Do. Lower	..	..	..	..	75	..	75
Kistna	..	..	..	..	..	..	..
Kurnool, East	..	..	..	..	..	..	..
Do. South	..	..	..	..	..	..	..
Do. West	..	..	..	..	..	..	..
Total ..	..	..	..	..	502	..	502
Central Circle.							
Reserved forests.							
Bellary	182	..	..	..	357	80	619
Anantapur	154	15	..	..	574	..	743
Guntūr	59	..	..	..	633	122	814
Cuddapah, West	66	..	..	..	668	..	734
Do. East	164	..	..	..	920	..	1,084
Nellore	55	..	..	..	674	..	729
Chingleput	40	..	..	..	166	3	209
Chittoor	156	29	..	..	650	3	838
Total ..	876	44	..	..	4,642	208	5,770
Reserved lands.							
Bellary	63	..	..	..	..	..	63
Anantapur	..	..	..	..	..	10	10
Guntūr	..	..	..	..	..	..	..
Cuddapah, West	..	..	..	..	..	..	..
Do. East	..	..	..	..	..	..	..
Nellore	..	..	..	..	..	..	..
Chingleput	..	..	..	..	..	..	..
Chittoor	..	..	..	..	..	..	..
Total ..	63	..	..	..	..	10	73
Southern Circle							
Reserved forests.							
Vellore, North	54	..	..	..	437	..	491
Do. South	51	..	..	..	661	..	712
South Arcot	34	..	..	..	302	..	336
Salem, North	102	..	..	..	690	..	792
Do. South	66	..	..	..	515	..	581
Trichinopoly	44	2	..	..	309	..	355
Madura	94	..	..	..	563	..	657
Tinnevelly	225	53	2	2	147	..	429
Total ..	670	55	2	2	3,624	..	4,353
Reserved lands.							
Vellore, North	..	..	..	..	(b)	..	..
Do. South	..	..	..	..	(b)	..	..
South Arcot	..	..	..	..	..	..	..
Salem, North	..	..	..	..	46	..	46
Do. South	..	..	..	..	18	..	18
Trichinopoly	..	..	..	..	9	..	9
Madura	..	..	..	..	(b)	..	..
Tinnevelly	..	..	..	..	..	..	..
Total ..	..	..	..	..	73	..	73

(a) Includes 20·5 square miles of Karakavalasa leased forests and its east and west blocks.
(b) Area omitted being less than a square mile.
(c) Excludes 167 square miles belonging to the Parlakimedi Maliahs.

Area closed and open to grazing during 1914–15—*cont.*

District.	Area in square miles.						
	Closed to all animals.		Closed to both goats and sheep.		Area closed to goats only.	Open to all animals.	Total forest area as per Form No. 65.
	Whole year.	Part of year.	Whole year.	Part of year.		Whole year.	
	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.		SQ. MLS.
			WESTERN CIRCLE.				
			Reserved forests.				
South Canara	10	..	..	..	788	..	798
Malabar, North	30	..	233	..	..	..	263
Do. South	143	..	..	..	..	..	143
The Nilgiris	23	..	..	..	452	..	475
Kollegal	79	..	..	..	651	..	730
Coimbatore, North ..	57	..	..	..	865	..	922
Do. Central ..	147	..	..	..	206	..	353
Do. South ..	85	3	179	..	187	..	454
Total ..	574	3	412	..	3,149	..	4,138
			Reserved lands.				
South Canara	..	..	..	..	*	..	*
Malabar, South	20	..	..	..	..	..	20
The Nilgiris	4	..	..	..	79	..	83
Kollegal	..	..	..	..	1	..	1
Coimbatore, North ..	..	..	..	..	*	..	*
Do. Central ..	10	..	..	..		..	10
Do. South ..	*	..	..	..	*	..	*
Total ..	34	..	..	..	80	..	114
Grand total ..	608	3	412	..	3,229	..	4,252
Grand total, Presidency ..	3,380	102	645	2	15,292	218	19,639

* Less than one square mile.

ANNUAL FORM No. 74.

Forest Department, Madras Presidency.

RETURN of Grazing in the State forests during 1914–15.

ANNUAL

Forest Department,

RETURN of grazing in the

Districts.	Grazing on payment. Number of animals. At enhanced or special rates. Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.	At full rates. Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
					RS.					RS.
NORTHERN CIRCLE.										
Ganjām	..	..	..	..	..	(a) & (p) 10,785	(p) & (q) 37,191	(a) S 570	.. Fodder grass.	11,075 (r) 153
Vizagapatam ..	(b) 223	(b) 3,174	(b) S 3,471	..	1,339	(a) 1,255	(a) 17,143	(a) S 1,586	..	3,834
Gōdāvari, Upper..	..	..	..	..	..	..	..	..	..	..
Do. Lower ..	(f) 1,199	(f) 478	..	..	1,078	(h) 2,423	(h) 2,856	..	..	1,925
Kistna	(f) 415	(f) 5,057 (i) 1,742	(f) S 2,083	..	4,340	(a) 4,656	(a) 20,039	(a) S 19,199	.. Fodder grass.	7,303 612
Kurnool, East ..	(b) 7,487	(b) 78,479	(b) S 35,345	..	27,744	(a) 1,745	(a) 7,230	(a) S 22,589	..	4,128
Do. South ..	(b) 703	(b) 4,712	(b) S 7,709	..	2,493	(a) 2,274	(a) 15,007	(a) S 26,128	.. Fodder grass.	6,116 366
Do. West ..	(b) 5,080	(b) 31,154	(b) S 16,404	.. Fodder grass.	12,379 21	(a) 4,101	(a) 34,859	(a) S 63,096	..	.. 13,989
Total ..	15,107	124,796	S 65,012	Fodder grass.	49,394	(a1) 27,239	134,325	S 133,168	Fodder grass ..	49,501
Unreserved lands.										
Gōdāvari, Upper..	(c) 139	(c) 240	(c) S 2,078 (c) G 2,150	..	439	..	..	..	..	..
Do. Lower..	(f) 186	(f) 29	..	..	150	(h) 6,613	(h) 7,222	..	.. Fodder grass.	7,607 20
Kistna	..	..	..	..	..	(a) 702	(a) 222	..	.. Fodder grass.	305 223
Total ..	325	269	S 2,078 G 2,150	..	589	7,315	7,444	..	Fodder grass ..	(a[1])8,155
Grand total ..	15,432	125,065	S 67,090 G 2,150	Fodder grass	49,983	(a[1]) 34,554	141,769	S 133,168	Fodder grass ..	(a[1])57,656
CENTRAL CIRCLE.										
Bellary	..	..	G 29,208	..	7,302	15,641	73,037	S 160,644	..	34,620
Anantapur ..	..	..	..	..	..	4,723	80,399	S 166,460	..	32,451
	..	..	..	..	.. (o)	65	1,900	8,434	..	586
	..	..	..	..	..	Panchayat fees.			..	429
Guntūr	(p) 620	2,202	G 56,999	..	16,527	16,232	22,876	S 103,254	..	20,056
	..	..	S 11,334	..		..	..	.	..	..
	(q) 1,528	61,097	S 75,869	..	38,283	..	..	..	..	..
	(r) ..	6,759	..	..	6,759	..	..	..	..	..
Cuddapah, West.	..	..	..	..	..	2,135	37,790	S 105,244	..	17,753
	..	..	..	..	..	Penning fees.			..	101
Do. East..	..	..	..	..	..	3,458	46,593	S 79,218	..	17,460
	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..
Nellore	(s) ..	54,423	S 109,687	..	27,317	6,851	..	..	..	2,569
	(t) ..	..	..	..	..	Kancha rent.			..	32,024
Chingleput ..	..	..	G 426	..	106	2,258	29,847	S 68,297	..	12,846
	..	..	..	..	..	Panchayat fees.			..	283
Chittoor ..	..	..	G 770	..	578	2,462	78,990	S 64,663	..	21,796
	..	..	..	..	..	Penning fees.			..	22
Total ..	2,148	124,481	G 87,403 S 196,890	..	96,872	53,825	371,432	S 756,214	..	1,92,996

G = Goats. S = Sheep.

(a) The full rates are 6 annas per buffalo, 3 annas per cow or bullock and 1 anna 6 pies per sheep.

(c) Enhanced rates in Gōdāvari Upper are 8 annas per buffalo, 5 annas per cow or bullock and 1 anna per sheep and 1 anna 6 pies per goat.

(e) Privileged rates in Nugur taluk are 4 annas per buffalo, 2 annas per cow or bull, 1 anna 3 pies per goat and 1 anna per sheep.

(h) The rates are 8 annas per buffalo and 4 anna per cow or bull.

Central Circle.—The full or normal rates are As. 6 per buffalo, As. 3 per cow and As. 1–6 per sheep.

(o) Half the normal rates for half-year in Anantapur.

The enhanced or special rates are—

Goats—Bellary, Guntūr and Chingleput, As. 4; Chittoor, As. 12.

Guntūr .. (p) As. 8 per buffalo, As. 4 per cow and As. 2 per sheep.
(q) As. 12 per buffalo, As. 6 per cow, and As. 3 per sheep.
(r) Plough bullocks at Re. 1.

Nellore .. (s) As. 4 per cow and As. 2 per sheep.
(t) Kancha rent is charged at a minimum rate of As. 8 per cow unit.

(a[1]) Corrected in the Board's office.

(p) Excludes 431 buffaloes belonging to Parlākemedi Maliahs.

(q) Excludes 1,452 cows belonging to Parlākemedi Maliahs.

(r) Excludes Rs. 434 collected in the Parlākemedi Maliahs.

Form No. 74.

Madras Presidency.

State forests during 1914–15.

At privileged rates.						Grazing free. Number of animals. By right under settlement.					Grazing free. Number of animals. During pleasure of Government or otherwise than under settlement.						Grand total of value at full rates.
Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received. Actual.	Fees received. Value at full rates.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	Total value of fees at full rates.	
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
				RS.	RS.					RS.					RS.	RS	RS.
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11,228
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4,838
(d)5,156	(d)25,300	(d)S 10,076	..	2,541	7,622	..	..	..	..	..	4,340	45,247	S 20	..	10,113	10,113	17,735
(n) 1,573 (l) 604	(n)14,499 (l) 16,035	..	..	3,245	8,722	..	..	..	..	..	91	523	..	..	176	176	11,542
..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	9,541
..	..	..	..	..	..	157	235	G 762 S 1,140	..	281	..	..	..	..	..	..	24,936
..	..	..	..	..	..	2	26	S 66	..	12	..	..	..	..	..	..	7,998
..	..	..	..	..	..	..	1,491	S 3,303	..	589	..	..	..	..	..	..	26,389
7,333	(o)55,834	S 10,076	..	5,786	16,344	159	1,752	G 762 S 4,509	..	882	4,431	(o)45,776	S 20	..	10,289	10,289	1,14,207
(e) 6,778	(e)37,385	(e)S 1,576 G 812	.	6,280	9,400	..	..	..	..	..	..	..	..	..	..	..	9,888
..		..		..	..	..	..	..	..	..	..	..	..	..	..	..	7,727
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	533
6,778	37,385	S 1,576 G 812	..	6,280	9,400	..	..	..	..	..	..	..	..	..	..	..	(o) 18,148
14,111	(o)93,219	S 11,652 G 812	.	12 066	25,744	159	1,752	S 4,509 G 762	..	882	4,431	(o)45,770	S 20	..	10,289	10,289	(o) 1,32,355
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	41,922
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	33,466
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	81,625
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
(u) ..	157	S. 200	..	24	48	..	..	..	..	..	..	..	..	..	..	..	17,902
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
(v) ..	154	..	..	31	71	..	807	..	..	151	..	..	..	..	..	..	17,682
(w) ..	223	..	..				..	..	..	..	..	..	..	..	..	..	
(x) ..	..	S. 1	..				..	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	..	4,489	..	..	1,122	1,122	63,032
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	..	81	..	..	15	15	13,250
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..	22,396
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
..	534	S 201	..	55	119	..	807	..	..	151	..	4,570	..	..	1,137	1,137	2,91,275

(b) Enhanced rates are 8 annas per buffalo, 4 annas per cow or bull and 2 annas per sheep.
(d) The privileged rates in Bhadrāchalam taluk are 2 annas per buffalo, 1 anna per cow or bullock and 6 pies per sheep.
(f) The enhanced rates are 12 annas per buffalo, 6 annas per cow or bullock and 3 annas per sheep.
(i) At Re. 1 per plough bull.
(l) At Anna 1 per buffalo or cow or bull.
(n) At 4 annas per buffalo and 2 annas per bull or cow.

The privileged rates are—
West Cuddapah .. (u) As. 1-6 per cow and 9 pies per sheep.
East Cuddapah .. (v) As. 1 per cow. (w) As. 1-6 per cow. (x) Ps. 6 per sheep.
(o) Corrected in the Board's office.

Return of Grazing in the

District.	Grazing on payment. Number of animals. At enhanced or special rates. Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.	At full rates. Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
SOUTHERN CIRCLE.					RS.					RS.
Vellore, North	..	..	..	..	..	2,271	68,869	S. 104,954	..	23,604 (a) 74
Do. South	..	23,468	..	..	5,867	1,912	87,563	S. 58,263	..	22,597 (c) 102
Arcot, South	..	(d) 272	(e) S. 430	..	125	5,251	70,373	S. 151,921	..	(g) 29,207
Salem, North	1,940	87,479	S. 28,852	..	26,446	93	20,674	S. 14,578	..	5,278 (c) 335 (b) 86
Do. South	..	..	..	..	..	838	91,336	S. 32,659	..	20,502
Trichinopoly	..	..	G. 130	..	33	2,414	50,607	S. 183,590	..	27,605
Madura	444	63,628	S. 42,835	483	21,604	..	..	..	..	..
Tinnevelly	.	..	..	..	..	612	17,721	S. 32,495	..	6,599 (c) 23 (f) 236
Total ..	2,384	174,847	G. 130 S. 72,117	483	54,075	13,391	407,143	S. 578,460	..	1,36,248
WESTERN CIRCLE.										
Reserved Forests.										RS.
South Canara	..	..	..	..	..	5,317	37,031	..	..	8,937
Malabar, North	..	..	..	..		3,388	6,919	..	..	2,568
Do. South	..	..	..	..	..	..	..	..	..	(k) 1
The Nilgiris	..	(i) 1,436 (j) 58	..	..	732	10,304	23,230	2,150	..	8,421 (k) 249
Kollegal *	2,749	77,305	5,329	..	21,367	..	..	..	.	..
Coimbatore, North * ..	5,893	80,291	32,471	..	27,078 (k) 2,008 (l) 25	..	..	..	..	..
Do. Central ..	..	..	..	..	..	242	17,846	16,996	..	5,030 (k) 1,001 (n) 1,074
Do. South ..	..	..	..	..	..	508	38,778	416	(m) 3	2,683 (k) 868
Total ..	8,642	159,090	37,800	..	51,210	19,759	123,804	19,562	3	30,832
Reserved Lands.										
The Nilgiris	..	(i) 315	..	..	157	775	923	..	..	464
Total, Western Circle ..	8,642	159,405	37,800		51,367	20,534	124,727	19,562	3	31,296
Grand Total, Presidency..	28,606	583,798	(S) 373,897 (G) 89,683	483	2,52,297	122,304	1,045,071	(S) 1,487,404	3	4,18,196

G. = Goats. S. = Sheep.

The enhanced or special rates are buffalo 8 annas and sheep 2 annas in North Salem and Madura, cow, bullock or other animals 4 annas in South Vellore, North Salem and Madura and goats 4 annas in Trichinopoly.

The full rates are 6 annas per buffalo, 3 annas per cow, bullock or other animal and 1½ annas per sheep.

The privileged rates are half the full rates.

(a) Collection from panchayatdars.
(b) Sale-proceeds of fodder grass.
(c) Penning license fee.
(d) Two hundred and forty-four cows at 4 annas each and 28 cows at 5 annas each.
(e) Three hundred and sixty-nine sheep at 2 annas each and 61 sheep at 2½ annas each.
(f) Lease amount for grazing in Kavalkuttiparambu reserved forest.
(g) Excludes Rs. 200 collected in previous years.

WESTERN CIRCLE REMARKS.

The full rates are As. 6 per buffalo, As. 3 per cow, bullock or other animals and As. 1-6 per sheep.

(i) Annas 8 per cow or bullock.
(j) Calves, half-rate.
(k) Sale-proceeds of fodder grass.
(l) Recovery of cost of permits lost.
(m) Elephants at Rs. 10 each.
(n) Revenue from reserved forests handed over to Panchayat.

State forests during 1914-15—*cont.*

At privileged rates. Buffaloes. (12)	At privileged rates. Cows and bullocks. (13)	At privileged rates. Goats and sheep. (14)	At privileged rates. Other animals. (15)	At privileged rates. Fees received. Actual. (16)	At privileged rates. Fees received. Value at full rates. (17)	Grazing free. Number of animals. By right under settlement. Buffaloes. (18)	By right under settlement. Cows and bullocks. (19)	By right under settlement. Goats and sheep. (20)	By right under settlement. Other animals. (21)	By right under settlement. Value of fees at full rates. (22)	During pleasure of Government or otherwise than under settlement. Buffaloes. (23)	During pleasure of Government or otherwise than under settlement. Cows and bullocks. (24)	During pleasure of Government or otherwise than under settlement. Goats and sheep. (25)	During pleasure of Government or otherwise than under settlement. Other animals. (26)	During pleasure of Government or otherwise than under settlement. Value of fees at full rates. (27)	Total value of fees at full rates. (28)	Grand total of value at full rates. (29)
				RS.	RS.					RS.					RS.	RS.	RS.
61	677	..	..	75	150	..	..	..	..	..	..	..	..	..	(h) 2,961	2,961	26,789
2,499	14,501	S. 531	..	1,853	3,706	..	..	..	..	..	140	1,274	S. 9	..	292	292	32,564
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	(h) 56	56	29,388
..	..	..	..	..	..	..	..	..	..	..	..	150	..	..	28	28	32,173
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20,502
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	27,638
..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	21,604
..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	6,858
2,560	15,178	S. 531	..	1,928	3,856	..	..	.	..	..	140	1,424	S. 9	..	3,337	3,337	1,97,516
..	..	..	(p) 17,820	2,228	(h) 2,228	..	..	..	..	..	..	..	..	..	..	..	11,165
..	..	..	..	..	..	..	..	..	..	..	..	..	..	(g) 1	91	91	2,659
..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	1
..	..	(o) 10,944	..	42	1,026	..	..	..	..	..	2,081	..	..	..	780	780	11,208
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	21,367
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	29,111
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7,105
..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	3,551
..	..	10,944	17,820	2,270	3,254	..	..	..	..	..	2,081	..	..	1	871	871	86,167
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	621
..	..	10,944	17820	2,270	3,254	..	..	..	..	..	2,081	..	..	1	871	871	86,788
16,671	108,931	(S). 23,328 (G). 812	17,820	16,319	32,973	159	2,559	4,509	762	1,033	6,652	51,764	29	1	15,634	15,634	7,07,934

(h) Free removal of grass.

* Annas 8 per buffalo, As. 4 per cow, bullock or other animals and As. 2 per sheep.

(o) Annas 3 per 100 per diem.

(p) Buffaloes, cows, etc., brought for a cattle fair charged without distinction at a uniform rate of As. 2 per head.

(q) Elephant.

ABSTRACT of animals licensed to graze on payment.

Circle.	Buffaloes.	Bullocks and cows.	Sheep.	Goats.	Other animals.	Total.
Northern Circle	64,097	360,053	211,910	2,962	..	639,022
Central Circle	55,973	496,447	953,305	87,403	..	1,593,128
Southern Circle	18,335	597,168	651,108	* 130	483	1,267,224
Western Circle	29,176	284,132	68,306	..	17,823	399,437
Grand Total, Presidency ..	167,581	1,737,800	1,884,629	90,495	18,306	3,898,811

* Allowed in Sripurandan padugai reserve land.

ANNUAL FORM No. 75.

Forest Department, Madras Presidency.

AREA of plantations and topes, 1914–15.

District.	Area in acres. On 1st July 1914.	Added during the year.	Excluded during the year.	Area on 30th June 1915.	Expenditure during the year. Creation.	Upkeep.	Total expenditure from commencement. Creation.	Upkeep.	Revenue during the year.	Total revenue fr[illegible] date of creation of plantation.
NORTHERN CIRCLE.										
A.—Regular Plantations.										
	ACS.	ACS.	ACS.	ACS.	RS.	RS.	RS.	RS.	RS.	RS.
Ganjām	(c) 412	..	..	(c) 412	(d) ..	(e) 54	(f)28,199	(g) 12,918	5,400	23,216
Vizagapatam	78	..	27	51	..	..	..	5	295	2,885
Gōdāvari, Lower	875	..	457	418	..	630	50,048	23,105	38,613	1,29,177
Kistna	917	..	604	313	..	398	19,540	58,960	25,969	93,002
Kurnool, East	130	..	..	130	..	504	38,471	25,538	..	..
Do. South	* ..	..	..	..		..	..		..	..
Do. West	1,255	123	..	1,378	18,384	16,996	2,72,826	50,046	3,317	12,657
Total	3,667	123	1,088	2,702	18,384	18,582	4,09,084	1,70,572	73,594	2,60,937
B.—Taungya Plantations—Nil.										
C.—Cultural Operations										
Ganjām	419	..	..	419	..	130	2,268	633	..	..
Vizagapatam	44	..	..	44	6	4	375	97	..	..
Gōdāvari, Upper	829	..	..	829	..	..	2,225	830	..	145
Do. Lower	2,402	..	..	2,402	..	..	2,359	1,032	..	..
Kistna	3,726	304	427	3,603	436	83	8,774	3,662	8,654	45,094
Kurnool, East	33	..	..	33	..	..	9,919	3,561	..	..
Do. South	300	19	..	319	652	32	* 7,721	* 917	..	..
Do. West	2,418	20	..	2,438	..	..	21,274	118	..	..
Total	10,171	343	427	10,087	1,094	249	54,915	10,850	8,654	45,239
Total, Northern Circle	13,838	466	1,515	12,789	19,478	18,831	463,999	1,81,422	82,248	3,06,176
CENTRAL CIRCLE.										
A.—Regular Plantations.										
Bellary	579	..	..	579	..	308	9,423	62,455	..	14
Anantapur	..	..	..	..	..	..	..	..	..	..
Guntūr	(a)2,951	..	117	2,834	..	1,356	51,814	32,519	13,189	42,422
Cuddapah, West	10	..	..	10	..	..	560	..	..	..
Do. East	8	..	.	8	..	83	..	267	1,232	1,425
Nellore	(a)4,624	..	664	3,960	..	4,188	1,56,705	15,408	69,000	5,66,774
Chingleput	356	..	..	356	..	240	8,103	5,741	663	11,358
Chittoor	..	..	..	..	..	..	..	..	..	..
Total	8,528	..	781	7,747	..	6,175	2,26,605	1,16,390	84,084	6,21,993
B.—Taungya Plantations—Nil.										
C.—Cultural Operations.										
Bellary	20,690	..	..	20,690	..	314	84,252	11,031	..	..
Anantapur	70,977	196	(b) 70,977	196	271	..	39,915	593	..	274
Guntūr	(a) ..	..	..	..	..	..	348	..	..	..
Cuddapah, West	1,713	..	..	1,713	..	..	855	136	560	3,100
Do. East	1,791	..	..	1,791	..	325	492	1,879	670	698
Nellore	(a) 116	..	..	116	..	7	2,276	12	..	..
Chingleput	14,583	..	..	14,583	..	427	2,715	4,826	..	..
Chittoor	230	47	..	277	187	126	583	986	184	285
Total	110,100	243	70,977	39,366	458	1,199	1,31,436	19,463	1,414	4,357
Total, Central Circle	118,628	243	71,758	47,113	458	7,374	3,58,041	1,35,353	85,498	6,26,350

* Correct figures furnished by the Collector.

(a) Revised figures furnished by Collectors.
(b) The Collector reports that this area has been dropped as there are no plantations in the area.
(c) Excludes 6½ acres belonging to Parlākimedi Maliahs.
(d) Excludes Rs. 17-4-0 spent on teak plantations in Parlākimedi Maliahs.
(e) Do. Rs. 123-8-0 do. do.
(f) Do. Rs. 17-4-0 do. do.
(g) Do. Rs. 217-7-10 do. do.

Area of plantations and topes, 1914–15—*cont.*

District.	Area in acres.				Expenditure during the year.		Total expenditure from commencement.		Revenue during the year.	Total revenue from date of creation of plantation.
	On 1st July 1914.	Added during the year.	Excluded during the year.	Area on 30th June 1915.	Creation.	Upkeep.	Creation.	Upkeep.		
SOUTHERN CIRCLE.										
A.—Regular Plantations.										
					RS.	RS.	RS.	RS.	RS.	RS.
North Vellore	1,267 (a) −78	16	1,046	159	892	1,109	17,974	1,32,261	5,515	76,032
South do.	..	..	..	..	..	..	..	..	..	..
South Arcot	70	..	70	..	..	..	..	..	..	..
North Salem	(b)+143	..	..	143	168	..	8,928	..	..	..
South do.	553		222	331	..	..	33,433	(c) 8,648	596	(c) 10,339
Trichinopoly	146	..	..	146	..	25	34,561	9,853	1,002	34,578
Madura	672	610	..	1,282	3,113	1,037	38,789	6,944	170	2,328
Tinnevelly	1,798	7	..	1,805	172	393	3,610	6,693	..	..
Total ..	4,506 + 65	633	1,338	3,866	4,345	2,564	1,37,295	1,64,399	7,283	1,23,277
B.—Taungya Plantations.										
North Vellore	818 (d)−132	..	..	686	..	15	77	281	33	129
South do.	140	..	47	93	..	..	..	..	204	2,476
South Arcot	..	..	..	..	..	..	..	..	..	..
North Salem	..	..	..	..	..	..	..	..	..	..
South do.	..	..	..	..	..	..	..	..	..	..
Trichinopoly	..	..	..	..	..	..	..	..	..	..
Madura	..	..	..	..	..	..	..	..	..	..
Tinnevelly	1	..	1	..	..	..	..	..	..	..
Total ..	959 − 132	..	48	779	..	15	77	281	237	2,605
C.—Cultural Operations.										
North Vellore	840	..	..	840	43	89	63	98	1	579
South do.	821	..	..	821	..	39	267	149	..	..
South Arcot	5,169	..	(e) 5,169	..	..	..	..	..	..	..
North Salem	577	..	564	13	..	..	(f) ..	(f) 1,255	12	(f) 557
South do.	816	20	..	836	39	71	2,005	1,206	..	152
Trichinopoly	..	..	..	..	..	..	..	.	..	..
Madura	13	..	13	..	..	..	..	..	..	..
Tinnevelly	3,456	210	..	3,666	61	641	4,774	821	..	..
Total ..	11,692	230	5,746	6,176	143	840	7,109	3,529	13	1,288
Total, Southern Circle ..	17,090	863	7,132	10,821	4,488	3,419	1,44,481	1,68,209	7,533	1,27,170
WESTERN CIRCLE.										
A.—Regular Plantations.										
South Canara	124	..	70	54	..	..	2,462	7,067	38	18,190
Malabar, North	871	2	..	873	32	827	15,272	18,732	999	1,939
Do. South	6,473 (g)+1	..	..	6,474	..	4,279	5,37,942	5,31,041	1,15,827	18,78,831
The Nilgiris	1,766 (g)—91	..	..	1,675	..	1,195	6,462	2,83,469	27,520	5,74,323
Coimbatore, Central	595	7	..	602	16	..	548	255	..	..
Do South	157	.	..	157	..	1,094	9,947	4,318	..	..
Total ..	9,896	9	70	9,835	48	7,395	5,72,633	8,44,882	1,44,384	24,73,283

(a) Area wrongly included in previous years.
(b) Omitted to be shown in previous years.
(c) Difference due to deduction of amounts for areas excluded in 1913–14.
(d) Correct figure furnished by the District Forest officer.
(e) Unsuccessful area under cultural operations abandoned.
(f) Difference due to exclusion of areas during the year.
(g) Rectification due to adoption of correct area.

Area of plantations and topes, 1914-15—*cont.*

District.	Area in acres. On 1st July 1914.	Added during the year.	Excluded during the year.	Area on 30th June 1915.	Expenditure during the year. Creation.	Upkeep.	Total expenditure from commencement. Creation.	Upkeep.	Revenue during the year.	Total revenue from date of creation of plantation.
WESTERN CIRCLE—*cont.*										
B.—Taungya.										
	ACS.	ACS.	ACS.	ACS.	RS.	RS.	RS.	RS.	RS.	RS.
South Canara	1,193	..	..	1,193	..	..	46	52	..	..
Malabar, North	753	9	..	762	..	..	..	10,728	..	4,978
Total ..	1,946	9	..	1,955	..	..	46	10,780	..	4,978
C.—Cultural Operations.										
South Canara	..	..	..	..	..	..	..	(a) 191	..	..
Malabar, North	2,977	1,365	..	4,342	666	280	2,036	7,398	..	..
Do. South	215	..	..	215	..	27	2,291	1,347	..	..
The Nilgiris	97	..	..	97	..	248	367	29,762	..	..
Kollegal	6,670	310	..	6,980	14	..	446	149	..	..
Coimbatore, North	27,248	120	..	27,368	103	..	676	..	100	259
Do. Central	768	596	..	1,364	317	..	1,908	343	..	37
Do. South	1,181	..	..	1,181	..	223	2,187	1,323	..	..
Total ..	39,156	2,391	..	41,547	1,100	778	9,911	40,513	100	296
Grand Total, Western Circle	50,998	2,409	70	53,337	1,148	8,173	5,82,590	8,96,175	1,44,484	24,78,557
Total. Regular plantations ..	26,662	765	3,277	24,150	22,777	34,716	13,45,617	12,96,243	3,09,345	34,79,490
Total. Taungya	2,773	9	48	2,734	..	15	123	11,061	237	7,583
Total. Cultural operations ..	171,119	3,207	77,150	97,176	2,795	3,066	2,03,371	74,355	10,181	51,180
Grand Total, Presidency ..	200,554	3,981	80,475	124,060	25,572	37,797	15,49,111	13,81,659	3,19,763	35,38,253

(a) Cost incurred in sowing seeds broadcast in reserved forests.

ANNUAL

Forest Department, Madras

OUTTURN (in cubic feet solid) of Timber and Fuel

District.	Timber in the rough logs.					Timber in the rough poles.					Sawn or square timber.				
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
NORTHERN															
I. Reserved															
	C. FT.	C. FT.	C. FT.		C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.		C. FT.	C. FT.
Ganjām	6,973	(b) 35,043	15,780	..	57,796	1,702	8,915	20,010	..	(a)30,627	1,685	..	..	..	1,685
Vizagapatam	1,830	61	..	..	1,891	.	1,711	200	..	1,911	..	..	..	..	..
Gōdávari, Upper ..	658	..	.	..	658	..	..	..	..	..	..	..	..	..	..
Do. Lower ..	934	4,157		..	5,091	1,069	..	..	..	1,069	..	..	.	..	..
Kistna	..	4,489	..	..	4,489	.	768	..	..	768	..	32	..	..	32
Kurnool, East	5,206	12,040	..	.	17,246	10,000	1,018	..	..	11,018	4,531	1,020	..	..	5,551
Do. South	3,644	23,885	270	..	27,799	93	26,936	149	11	27,189	1,152	180	..	..	1,332
Do. West	31,750	140	..	..	31,890	30,495	..	447	787	31,729	44	..	..	..	44
Total, Reserved forests.	50,995	79,815	16,050	..	146,860	43,359	39,348	20,806	798	104,311	7,412	1,232	..	..	8,644
II. Leased															
III. Reserved															
Upper Gōdávari ..	1,098	..	..	..	1,098	..	..	..	..	..	..	..	..	..	..
IV. Unreserved															
Ganjām	533	77,137	13,890	..	91,560	2,448	106,143	21,420	179,640	(a) 309 651	36,208	(a) 2,238	..	3,698	42,144
Vizagapatam	..	1,917	..	..	1,917	..	8,175	..	..	8,175	..	291	..	..	291
Upper Gōdávari ..	35,860	50,787	1,056	..	87,703	3,744	2,174	1,025	..	6,943	..	..	..	..	..
Lower do.	36	56,262	..	..	56,298	473	..	.	..	473	..	10,123	..	..	10,123
Kistna	..		..	..	..	..		..	..	..	..	..	..	..	..
Kurnool, East	..	13,378	..	..	13,378	..	2,208	..	..	2,208	..	..	..	..	..
Do. South			1,240	..	1,240	..	..	150	..	150	..	..	..	..	..
Do. West ..	966	1,540	..	..	2,506	23,558	..	..	.	23,558	45	.	..	..	45
Total, Unreserved lands.	37,395	201,021	16,186	..	254,602	30,223	118,700	22,595	179,640	351,158	36,253	12,652	..	3,698	52,603
Grand total ..	89,488	280,836	32,236	..	402,560	73,582	158,048	43,401	180,438	455,469	43,665	13,884	..	3,698	61,247
CENTRAL															
I. Reserved															
Bellary	27	..	..	..	(a) 27	2,041	5,650	..	..	7,691	..	..	..	..	..
Anantapur	32	1,845	1,485	..	3,362	..	..	..	..	..	..	..	..	..	..
Guntūr	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cuddapah, West ..	..	..	..	..	..	..	1 258	..	..	1,258	..	..	..	..	..
Do. East ..	..	.	..	..	..	4,111	66,743	300	..	71,154	..	..	..	..	..
Nellore	398	2,202	..	..	2,600	..	..	..	..	..	..	..	..	..	..
Chingleput ..	1,396	57,505	..	..	58,901	..	..	..	..	..	..	..	..	..	..
Chittoor	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	1,853	61 552	1,485	.	64,890	6,152	73,651	300	.	80,103	..	..	..	..	..

NORTHERN CIRCLE REMARKS.

Ganjām.

(a) Estimated at 60 cubic feet per cart load.

(b) Estimated at 15 cubic feet per tree.

Vizagapatam.

Of the total timber 130,019, 126,271 are estimates; 3,748 are actuals.

One cart being equavalent to 20 H. L. or 20 cubic feet.

Upper Gōdāvari.

Charcoal—*Nil.*

Timber and Fuel all actuals.

Lower, Gōdāvari.

	C. FT.
(a) Actuals	258,165
Figures arrived at, at the rate of 1 anna per cubic foot by commission	163,841
(b) Actuals	308,223
Figures arrived at, at the rate of 3 pies per cubic foot by commission	12,296

Kistna.

The figures shown in column 17 to 19 and 28 are of approximate estimate.

Kurnool, East.

All figures are actuals.

Kurnool, South.

Timber and fuel shown against purchasers are taken from their accounts.

Kurnool, West.

All figures are actuals.

* Excludes 1,085 cubic feet belonging to Parlâkimedi Maliahs.
† Do. 3,563 do. do.
‡ Do. 436 do. do.

§ Excludes 5,084 cubic feet belonging to Parlâkimedi Maliahs.
‖ Do. 18,446 do. do.
¶ Do. 23,550 do. do.

FORM No. 76.

Presidency.

during the year 1914–15, and Agency of Exploitation.

Miscellaneous.					Total timber.					Fuel.					
Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Total outturn.
(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
CIRCLE.															
Forests.															
C. FT.	C. FT.	C. FT.		C. FT.	C. FT. *	C. FT. †	C. FT. ‡	C. FT.	C. FT. §	C. FT.	C. FT. ‖		C. FT.	C. FT. (a) and ‖	C. FT. ¶
(a) 900	..	..	..	900	11,260	43,958	35,790	..	91,008	3,000	555,485	..	..	558,485	649,493
..	7	..	..	7	1,830	1,779	200	..	3,809	105,100	2,155	..	..	107,255	111,064
251	..	..	..	251	909	..	..	..	909	..	..	..	..	..	909
1,849	194	..	..	2,043	3,852	4,383	..	..	8,235	39,631	1,332,970	..	..	1,372,601	1,380,836
..	9,084	..	..	9,084	..	14,341	..	..	14,341	47,600	1,244,827	..	..	1,292,427	1,306,768
2,179	..	..	..	2,179	21,916	14,078	.	..	35,994	261	48,040	..	..	48,301	84,295
1,314	1,771	..	..	3,085	6,203	52,772	419	11	59,405	65,974	40,278	..	330	106,582	165,987
2,970	..	..	..	2,970	65,259	140	447	787	66,633	16,549	71,160	..	154,506	742,215	808,848
9,463	11,056	..	..	20,519	111,229	131,451	36,856	798	280,334	778,115	3,294,915	..	154,836	4,227,866	4,508,200
Forests—Nil.															
Lands.															
1,684	26	..	..	1,710	2,782	26	..	..	2,808	..	..	..	..	..	2,808
Lands.															
6,000	156,440	..	..	(a) 162,440	45,189	341,958	35,310	183,338	605,795	7,980	296,188	..	427,359	(a) 731,527	1,337,322
500	115,326	..	..	115,826	500	125,709	..	..	126,209	..	21,152	..	..	21,152	147,361
11,158	..	..	..	11,158	50,762	52,961	2,081	..	105,804	2,000	197,873	..	..	199,873	305,677
211	354,901	..	..	355,112	720	421,286	..	..	(a) 422,006	..	320,519	..	..	(b) 320,519	742,525
280	144,099	11,216	..	155,595	280	144,099	11,216	..	155,595	.	52,313	..	..	52,313	207,908
..	..	..	..	..	..	15,586	..	..	15,586	..	5,903	..	..	5,903	21,489
..	53,610	..	..	53,610	..	53,610	1,390	..	55,000	..	96,108	..	..	96,108	151,108
13,997	..	..	..	13,997	38,566	1,540	..	..	40,106	80,840	174,880	..	..	255,720	295,826
32,146	824,376	11,216	..	867,738	136,017	1,156,749	49,997	183,338	1,526,101	90,820	1,164,936	..	427,359	1,683,115	3,209,216
43,293	835,458	11,216	.	889,967	250,028	1,288,226	86,853	184,136	1,809,243	868,935	4,459,851	..	582,195	5,910,981	7,720,224
CIRCLE.															
Forests.															
..	..	..	..	..	2,068	5,650	..	..	7,718	3,770	118,910	..	..	122,680	130,398
..	..	..	..	.	32	1,845	1,485	..	3,362	..	16,200	..	..	16,200	19,562
234	24,784	96	..	25,114	234	24,784	96	..	25,114	295	510,384	..	..	510,679	535,793
2,696	4,319	1,224	..	8,239	2,696	5,577	1,224	..	9,497	1,400	524,969	..	..	526,369	535,866
..	..	..	..	..	4,111	66,743	300	..	71,154	14,224	1,670,309	..	..	1,684,533	1,755,687
..	..	..	..	..	398	2,202		..	2,600	13,723	1,669,449	..	..	1,683,172	1,685,772
..	..	..	..		1,396	57,505		..	58,901	981	79,893	..	..	80,874	139,775
20	13,858	520	..	14,398	20	13,858	520	..	14,398	335	317,568	..	..	317,903	332,301
2,950	42,961	1,840	..	47,751	10,955	178,164	3,625	..	192,744	34,728	4,907,682	..	..	4,942,410	5,135,154

CENTRAL CIRCLE REMARKS.

(a) SANDALWOOD (*Santalum album*).

In cases in which the volume or kind of produce has had to be calculated from the revenue received, the following methods have been adopted:—

Bellary.—Two-thirds of the timber removed is assumed to be of the first class and is valued at As. 6 per cubic foot, one-third is assumed to be of the second class and is valued at As. 4 per cubic foot. The volume of a palmyra tree is assumed to be 10 cubic feet and that of individual rafters and poles removed by contract, 1 cubic foot. Of the total volume of fuel removed on contract two-thirds are assumed to be green and are valued at As. 1½ per cubic foot and one-third is assumed to be dry and is valued at 1 anna per cubic foot.

Anantapur.—Revenue from timber and fuel is based on the assumption that a cart load contains 45 cubic feet and is worth Rs. 2-8-0 and Rs. 1-4-0, respectively.

Guntūr.—The volume of produce removed by contract from the coupes is calculated at a uniform rate of 1 cubic foot for each anna.

East and West Cuddapah and Chingleput.—All the figures of outturn of fuel and timber are stated to be actuals, although this can hardly be the case.

Nellore.—The figure in column 22 under "Reserved Forests" consists of two items (1) actuals and (2) estimates. The latter figure is 334·31 cubic feet which was arrived at by assuming one palmyra tree to be equal to 10 cubic feet. The figure in columns 19 and 23 has been arrived at in a similar fashion. The figure in column 28 is based on the assumption that As. 8 represents 20 cubic feet of fuel.

Chittoor.—All the figures in this statement except those under purchasers (timber and fuel) against unreserves are actuals. The excepted items are estimates calculated on the money value obtained from sale of trees on dharkast and waste lands at one anna per cubic foot of timber and three pies per cubic foot of fuel.

Outturn (in cubic feet solid) of Timber and Fuel

District.	Timber in the rough logs.					Timber in the rough poles.					Sawn or squared timber.				
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees	Right holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
CENTRAL															
II. Leased															
	C. FT.	C. FT.	C. FT.		C. FT.	C. FT.	C. FT.	C. FT.		C. FT.	C. FT.	C. FT.			C. FT.
Bellary	67	..	..	..	(a) 67	49	4,685	..	..	4,734	..	..	..	..	..
Total ..	67	..	..	..	67	49	4,685	..	..	4,734	..	..	..	..	..
III. Reserved															
IV. Unreserved															
Bellary	..	..	..	..	..	..	41,037	51	..	41,088	..	..	..	..	..
Anantapur	..	290,799	2,880	.	293,679	..	..	..	..	..	..	..	..	..	..
Guntūr	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cuddapah, West ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. East.. ..	..	..	..	..	..	..	14,947	..	..	14,947	..	..	..	..	..
Nellore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chingleput	..	34,145	..	..	34,145	..	..	..	..	..	..	..	..	..	..
Chittoor	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	..	324,944	2,880	..	327,824	..	55,984	51	..	56,035	..	..	..	..	..
Grand total ..	1,920	386,496	4,365	..	392,781	6,201	134,320	351	..	140,872	..	..	..	..	..
SOUTHERN															
I. Reserved															
Vellore, North.. ..	1,122	..	..	..	1 122	..	240	..	..	240	..	..	..	..	..
Do. South.. ..	865	731	975	..	2,571	112	100	..	..	212	..	..	..	..	..
Arcot, South	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Salem, North	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. South	421	..	..	..	421	1,135	139	..	..	1,274	443	..	..	..	443
Trichinopoly . ..	..	434	..	.	434	..	3	..	..	3	1,324	..	..	..	1,324
Madura	2,080	291	23	..	2,394	..	..	..	..	..	120	..	..	..	120
Tinnevelly	115	10,323	.	..	10,438	729	15,424	35	..	16,188	1,485	8,433	..	..	9,918
Total of reserved forests.	4,603	11,779	998	..	17,380	1,976	15,906	35	..	17,917	3,372	8,433	..	..	11,805
II. Leased															
III. Reserved															
Trichinopoly	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Unreserved															
Vellore, North.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. South.. ..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..
Arcot, South	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Salem, North	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. South	228	4	..	..	232	..	1	..	..	1	3,295	..	..	..	3,295
Trichinopoly	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madura	267	..	445	..	712	..	..	..	..	..	..	..	..	..	..
Tinnevelly	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total of unreserved lands.	495	4	445	..	944	..	1	..	..	1	3,295	..	..	..	3,295
Ab															
Vellore, North.. ..	1,122	..	..	..	1,122	..	240	..	..	240	..	..	..	..	..
Do. South.. ..	865	731	975	..	2,571	112	100	..	..	212	..	..	..	..	..
Arcot, South	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Salem, North	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. South	649	4	..	..	653	1,135	140	..	..	1,275	3,738	..	..	..	3,738
Trichinopoly	..	434	..	..	434	..	3	..	..	3	1,324	..	..	..	1,324
Madura	2,347	291	468	..	3,106	..	..	..	..	..	120	..	..	..	120
Tinnevelly	115	10,323	..	..	10,438	729	15,424	35	..	16,188	1,485	8,433	..	..	9,918
Total ..	5,098	11,783	1,443	..	18,324	1,976	15,907	35	..	17,918	6,667	8,433	..	..	15,100

SOUTHERN CIRCLE REMARKS.

Timber and fuel.—Government agency and free grantee.—Actuals.
Reserved forest—Purchasers—Timber.—Estimates based on the amounts realized.
Reserved forests and reserved lands—Purchasers—Fuel.—Estimates based chiefly on the accounts furnished by coupe contractors.
Unreserved lands—Timber and fuel—Purchasers.—Estimates based on the money value realized.

during the year 1914-15, and Agency of Exploitation—*cont.*

	Miscellaneous.					Total timber.					Fuel.					
	Government. (17)	Purchasers. (18)	Free-grantees. (19)	Right-holders. (20)	Total. (21)	Government. (22)	Purchasers. (23)	Free-grantees. (24)	Right-holders. (25)	Total. (26)	Government. (27)	Purchasers. (28)	Free-grantees. (29)	Right-holders. (c	Total. (31)	Total outturn. (32)
CIRCLE—*cont.*																
Forests.																
	C. FT.	C. FT.	C. FT.		C. FT.	C. FT.	C. FT.	C. FT.		C. FT.	C. FT.	C. FT.	C. FT.		C. FT.	C. FT.
	..	..	..	..	..	116	4,685	..	..	4,801	1,335	56,225	..	..	57,560	62,361
	..	..	..	..	..	116	4,685	..	..	4,801	1,335	56,225	..	..	57,560	62,361
Lands—Nil.																
Lands.																
	..	..	..	..	..	..	41,037	51	..	41,088	..	535,900	..	..	535,900	576,988
	..	..	..	..	..	..	290,799	2,880	..	293,679	..	103,104	..	..	103,104	396,783
	..	181,456	10,625	..	192,081	..	181 456	10,625	..	192,081	..	158,112	..	..	158,112	350,193
	..	54,061	..	.	54,061		54,061	..	..	54,061	..	331,909	..	..	331,909	385,970
	..		..	..	..	..	14,947	..	..	14,947	..	62,845	..	..	62,845	77,792
	..	54,578	9,319	..	63,897	..	54,578	9,319	..	63,897	..	47,829	..	..	47,829	111,726
	..	..	1,096	..	1,096	..	34,145	1,096	..	35,241	..	78,190	..	..	78,190	113,431
	..	194,740	10,947	..	205,687	..	194,740	10,947	..	205,687	..	287,961	..	..	287,961	493,648
	..	484,835	31,987	..	516,822	..	865,763	34,918	..	900,681	..	1,605,850	..	..	1,605,850	2,506,531
	2,950	527,796	33 827	..	564,573	11,071	1,048,612	38,543	..	1,098,226	36,063	6,569 757		..	6,605,820	7,704,046
CIRCLE.																
Forests																
	380	..	..	..	380	1,502	240	..	..	1,742	6,164	270,880	..	..	277,044	278,786
	2,770	5,257	..	..	8,027	3,747	6,088	975	..	10,810	122	256,088	..	..	256,210	267,020
	105	283	..	.	388	105	283	..	..	388	2,022	267,585	400	..	270,007	270,395
	452	..	..	..	452	895	..	..	..	895	380	163,138	..	..	163,518	164,413
	491	..	..	.	491	3,371	139	..	..	3,510	410	575,111	..	..	575,521	579,031
	..	530	9,919	..	10,449	120	967	9,919	..	11,006	29,433	569,358	..	..	598,791	609,797
	..	..	..	..	..	2,080	291	23	..	2,394	3,223	630,121	..	..	633,344	635,738
	810	8,208	179	..	9,197	3,139	42,388	214	..	45,741	9,758	613,546	..	..	623,304	669,045
	5,008	14,278	10,098	..	29,384	14,959	50,396	11,131	..	76,486	51,512	3,345,827	400	..	3,397,739	3,474,225
Forests—Nil.																
Lands.																
	..	..	1,715	..	1,715	..	..	1,715	..	1,715	..	19,816	..	..	19,816	21,531
Lands.																
	..	70,320	4,413	..	74,733	..	70,320	4,413	..	74,733	..	90,208	..	..	90,208	164,941
	..	102,792	21,800	..	124,592	..	102,792	21,800	..	124,592	..	50,488	..	..	50,488	175,080
	487	87,657	38,320	..	126,464	487	87,657	38,320	..	126,464	2,200	150,759	840	..	153,799	280,263
	99	124,386	3,700	..	128,185	3,394	124,386	3,700	..	131,480	..	100,403	.	..	100,403	231,883
	3	160,138	1,640	..	161,781	231	160,143	1,640	..	162,014	8,155	52,368	..	..	60,523	222,537
	..	251,927	509	..	252,436	..	251,927	509	..	252,436	..	723,601	..	..	723,601	976,037
	..	73,197	..	..	73,197	267	73,197	445	..	73,909	427	87,722	60	..	88,209	162,118
	..	48	6,820	..	6,868	..	48	6,820	..	6,868	..	156,360	2,684	..	159,044	165,912
	589	870,465	77,202	..	948,256	4,379	870,470	77,647	..	952,496	10,782	1,411,909	3.584	..	1,426,275	2,378,771
stract.																
	380	70,320	4,413	..	75,113	1,502	70,560	4,413	..	76,475	6,164	361,088	..	..	367,252	443.727
	2,770	108 049	21,800	..	132,619	3,747	108,880	22,775	..	135,402	122	306,576	..	..	306,698	442.100
	592	87,940	38,320	..	126,852	592	87,940	38,320	..	126,852	4,222	418,314	1,240	..	423,806	550,658
	551	124,386	3,700	..	128,637	4,289	124,386	3,700	..	132,375	380	263.541	..	..	263,921	396,296
	494	160,138	1,640	..	162,272	3,602	160,282	1,640	..	165,524	8,565	627,479	..	..	636,044	801,568
	..	252,457	12,143	..	261 600	120	252,894	12,143	..	265,157	29,433	1,312,775	..	..	1,342,208	1,607,365
	..	73,197	..	..	73,197	2,347	73,488	468	..	76 303	3,650	717,843	60	..	721,553	797,856
	810	8,256	6,999	..	16,065	3,139	42,436	7,034	..	52,609	9,758	769,906	2.684	..	782,348	834,957
	5,597	884,743	89,015	..	979,355	19,338	920,866	90,493	..	1,030,697	62,294	4,777,552	3,984	..	4.843,830	5,874,527

Outturn (in cubic feet, solid) of Timber and Fuel

Division.	Timber in the rough, logs.					Timber in the rough, poles.					Sawn or square timber.				
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
WESTERN															
I. Reserved.															
	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.		C. FT.	C. FT.
South Canara ..	7,647	5,367	..	..	13,014	..	..	..	..	..	4,648	..	..	..	4,648
Malabar, North ..	3,282	..	36	..	3,318	640	..	..	..	640	83,550	35,199	..	..	118,749
Do. South ..	860	12,218	..	..	13,078	2,214	..	..	..	2,214	1,437	..	..	..	1,437
The Nilgiris ..	256	2,361	..	..	2,617		500	..	..	500	..	..	..	..	..
Kollegal	..	..	..	..	..	523	238	..	..	761	169	..	.	..	169
Coimbatore, North ..	477	..	..	..	477	..	..	..	..	..	6,148	179	..	..	6,327
Do. Central ..	2,792	9,818	..	..	12,610	..	1,577	..	..	1,577		..		..	..
Do. South ..	..	..	..	..	..	295	137	..	..	432	14,991	12,465	..	..	27,456
Total ..	15,314	29,764	36	..	45,114	3,672	2,452	..	..	6,124	110,943	47,843		..	158,786
II. Leased.															
Malabar, South ..	139,501	6,907	..	..	146,408	12,580	..	..	..	12,580	..	..	..	..	..
The Nilgiris ..	48,736	42	..	..	48,778	2,916	..	..	..	2,916	..	..	..	..	..
Coimbatore, South ..	..	..	..	..	..	..	..	..	..	..	92,418	672	..	..	93,090
Total ..	188,237	6,949	..	..	195,186	15,496	..	..	..	15,496	92,418	672	..	..	93,090
III. Reserved.															
The Nilgiris ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Unreserved.															
South Canara ..	538	153,211	2,048	36,175	191,972	..	..	..	..	..	..	4,185	..	..	4,185
Malabar, South ..	520	286	..	..	806	..	..	..	..	..	233	..	..	..	233
The Nilgiris ..	..	9,980	..	..	9,980	..	..	..	..	..	..	..	..	..	..
Kollegal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Coimbatore, North ..	..	25,137	..	..	25,137	..	..	..	..	..	..	..	..	..	..
Do. Central ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. South ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	1,058	188,614	2,048	36,175	227,895	..	..	..	..	..	233	4,185	..	..	4,418
Grand total ..	204,609	225,327	2,084	36,175	468,195	19,168	2,452	..	..	21,620	203,594	52,700	..	..	256,294
Total, Presidency ..	301,115	904,442	40,128	36,175	1,281,860	100,927	310,727	43,787	180,438	635,879	253,926	75,017	..	3,698	332,641

REMARKS.—The figures are actuals except in the following cases:—

South Canara.

Outturn under all other agencies except "Government."

South Malabar.

Reserved forests columns 7 and 28 .. ..

Leased forests columns 2, 7 and 17 .. ..

Unreserved lands column 3 .. .. ..

Kollegal.

Reserved forests columns 7 and 8 .. .. ..

Reserved forests column 17 .. .. ..

Unreserved lands column 28 .. .. ..

Central Coimbatore.

Unreserved lands .. ..

Factor of conversion.

One tree = 25 cubic feet.

One teak log = 25 cubic feet.

One windblown tree = 15 cubic feet.

Teak poles are roughly calculated as per standard measurements.

Miscellaneous timber = 403 and 1,399 pieces at ·5 and ·4 cubic foot per piece.

5,138 quarters of sandalwood converted at half a cubic foot per quarter.

13,262 cart loads converted at 10 cubic feet per cart load.

The sale amount is converted into yield in proportion to seigniorage rates.

during the year 1914-15 and Agency of Exploitation—*cont.*

	Miscellaneous.					Total Timbers.					Fuel.					
	Government.	Purchasers.	Free-grantees.	Right holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Total outturn.
	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
CIRCLE.																
forests.																
	C. FT.	C FT.	C. FT.		C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.
	..	..	..	..	..	12,295	5,367	..	..	17,662	168,556	791,547	..	..	960,103	977,765
	7	..	..	..	7	87,479	35,199	36	..	122,714	16,422	610	..	..	17,032	139,746
	..	..	..	..	..	4,511	12,218	..	..	16,729	..	175	..	..	175	16,904
	..	..	140	..	140	256	2,861	140	..	3,257	348,551	17,567	..	..	366,118	369,375
	2,569	..	..	.	2,569	3,261	238	..	..	3,499	43,500	116,640	..	..	160,140	163,639
	1,723	882	800	..	3,405	8,348	1,061	800	..	10,209	31,785	1,009,337	..	..	1,041,122	1,051,331
	..	750	..	..	750	2,792	12,145	..	..	14,937	8,535	781,749	..	..	790,284	805,221
	2,700	8,850	..	..	11,550	17,986	21,452	..	..	39,438	240	278,415	..	..	278,655	318,093
	6,999	10,482	940	..	18,421	136,928	90,541	976	..	228,445	617,589	2,996,040	..	..	3,613,629	3,842,074
forests.																
	2,059	..	..	..	2,059	154,140	6,907	..	..	161,047	22,560	..	..	..	22,560	183,607
	..	..	..	..	..	51,652	42	..	..	51,694	..	..	..	..	..	51,694
	692	..	..	..	692	93,110	672	..	..	93,782	..	..	..	..	..	93,782
	2,751	..	..	..	2,751	298,902	7,621	..	..	306,523	22,560	..	..	..	22,560	329,083
lands.																
	..	..	217	..	217	..	..	217	..	217	..	..	..	..	..	217
lands.																
	..	..	..	..	..	538	157,396	2,048	36,175	196,157	..	485,725	340	..	486,065	682,222
	..	..	..	..	..	753	286	..	..	1,039	..	..	..	..	..	1,039
	..	..	..	..	..	..	9,980	..	..	9,980	..	362	..	..	362	10,342
	..	25,945	..	..	25,945	..	25,945	..	..	25,945	..	132,620	..	..	132,620	158,565
	..	..	440	..	440	..	25,137	440	..	25,577	..	13,919	..	..	13,919	39,496
	..	151,980	..	..	151,980	..	151,980	..	..	151,980	..	308,640	..	..	308,640	460,620
	..	..	80	..	80	..	..	80	..	80	..	..	..	..	..	80
	..	177,925	520	..	178,445	1,291	370,724	2,568	36,175	410,758	..	941,266	340	..	941,606	1,352,364
	9,750	188,407	1,677	..	199,834	437,121	468,886	3,761	36,175	945,943	640,149	3,937,306	340	..	4,577,795	5,523,738
	61,590	2,436,404	135,735	..	2,633,729	717,558	3,726,590	219,650	220,311	4,884,109	1,607,441	19,744,466	4,324	582,195	21,938,426	26,822,535

ANNUAL FORM No. 77.

Forest Department, Madras Presidency.

OUTTURN of Minor Forest Produce during the year 1914–15.

Circle.	Description of produce.	Produce removed or utilised. By Government Agency. Quantity.	By Government Agency. Value.	By purchasers. Value.	By free-grants. Value.	By right-holders. Value.	Total. Value.
		NO.	RS.	RS.	RS.	RS.	RS.
Northern Circle	Bamboos	(a)351,783	6,550	(b) 93,180	(c) 671	552	(d) ,00,953
		MDS.					
	Grazing and fodder grass ..	..	..	1,20,502	16	1,079	1,21,597
	Grass (tharbi, korai, etc.). ..	24,903	191	962	2,762	..	3,915
	Tamarind, soapnuts, galnuts, nux-vomica, sheakoy, etc.	3,021	6,321	29,804	..	..	36,125
	Horns, honey, wax, resin, gum, skins, etc.	..	..	777	..	..	777
	Tangedu, etc., barks and fibres.	..	..	6,140	4	..	6,144
	Stone, gravel, earth, etc. ..	..	..	3,638	3	..	3,641
	Leaves for platters	..	..	244	..	..	244
	Date and palmyra leaves, stacks, etc.	240	32	149	..	..	181
	Manure leaves and thorns ..	..	..	299	..	..	299
	Miscellaneous, including tree-tapping and tree-owners' fees.	3,939	6,300	51,180	51	23,570	81,101
	Total, minor produce only ..	32,103	12,844	2,13,695	2,836	24,649	2,54,024
		NO.					
Central Circle	Bamboos	12,200	226	14,945	246	..	15,417
	Grazing and fodder grass ..	..	..	2,99,154	1,122	151	3,00,427
	Grass (thatch) and korai, etc. ..	MDS.	..	921	8	..	929
	Tamarind, soapnuts and gallnuts.	9,620	13,347	47,559	..	..	60,906
	Horns, honey, wax, gum, etc.	..	..	884	..	..	884
	Tangedu, vembadam, etc. ..	172	263	1,65,530	..	..	1,65,793
	Mica, stone, gravel, etc. ..	3,234	20	34,061	..	..	34,081
	Manure leaves, thorns, etc. ..	..	..	4,354	..	..	4,354
	Date, palmyra leaves, etc. ..	1,076	46	18,062	190	..	18,298
	Miscellaneous including tree-tapping and tree-owners' fees.	570	1,025	60,486	..	..	61,511
	Total ..	14,672	14,701	3,31,857	198	..	3,46,756
	Grand total ..	..	14,927	6,45,956	1,566	151	6,62,600
		NO.					
Southern Circle	Bamboos	3,702	201	1,01,789	303	..	1,02,293
		MDS.					
	Grazing and fodder grass ..	6	3	1,92,251	3,337	..	1,95,591
	Grass (thatch, korai, etc.) ..	666	8	8,022	50	383	8,463
	Dammer, cardamoms, etc. ..	8	81	5,690	..	..	5,771
	Tamarind, soapnuts, gallnuts, etc.	296	148	6,664	..	..	6,812
	Horns, honey, wax, gum, etc. ..	* 0	4	762	..	..	766
	Avaram, vembadam, etc., barks.	..	..	14,649	..	..	14,649
	Stones, gravel and earth ..	36,680	57	14,099	13	..	14,169
	Manure leaves, thorns, etc. ..	..	..	21,182	..	..	21,182
	Date, palmyra leaves, etc. ..	..	..	1,613	99	..	1,712
	Miscellaneous including tree-tapping fees.	2,149	230	1,17,283	1,768	1,722	1,21,003
	Total ..	..	732	4,84,004	5,570	2,105	4,92,411
	Reserved forests.						
Western Circle	Bamboos in number	72,841	3,818	20,728	17	..	24,563
	Grazing and fodder grass ..	..	..	84,312	91	780	85,183
	Other produce. (e)						
		QRS.					
	Grass (thatch, korai, etc.) ..	307	21	1,648	6	..	1,675
	Dammer, tormeric, pepper, cardamoms, etc.	74	212	1,603	..	..	1,815

(a) Excludes the value of 520 bamboos belonging to Parlākimedi maliahs.
(b) Do. 69,520 do. do.
(c) Do. 100 do. do.
(d) Do. 70,140 do. do.
(e) Do. Rs. 8,564 belonging to Parlākimedi maliahs.

Outturn of Minor Forest Produce during the year 1914-15—*cont.*

Circle.	Description of produce.	Produce removed or utilized. By Government Agency. Quantity.	By Government Agency. Value.	By purchasers. Value.	By free-grants. Value.	By right-holders. Value.	Total. Value.
		QRS.	RS.	RS.	RS.	RS.	RS.
Western Circle—*cont.*	Tamarind, soapnuts, gallnuts, nux-vomica, sheakoy, etc.	5,388	5,993	3,520	..	..	9,513
	Horns, honey, wax, gum, resin, skins, etc.	479	4,650	5,441	..	..	10,091
	Avaram, vembadam, etc., barks and fibres.	..	..	3,008	..	..	3,008
	Stones, gravel, earth, etc. ..	..	..	1,068	..	..	1,068
	Manure leaves, thorns, etc. ..	..	..	463	..		463
	Date and palmyra leaves ..	.	..	510	..	..	510
	Miscellaneous	97	377	6,114	..	..	6,491
		6,345	11,253	23,375	6	..	34,634
	Total ..	..	15,071	1,28,415	114	780	1,44,380
	Leased forests.						
	Bamboos in number	25,916	1,555	551	21	..	2,127
	Grazing and fodder grass ..	..	..	621	..	..	621
	Other produce.	QRS.					
	Grass (thatch, korai, etc.) ..	..	..	15	..	..	15
	Dammer, turmeric, pepper, cardamoms, etc.	2	4	..	..	..	4
	Tamarind, soapnuts, gallnuts, nux-vomica, sheakoy, etc.	..	..	5	..	..	5
	Horns, honey, wax, gum, resin, skins, etc.	44	230	..	..	..	230
	Stones, gravel, earth, etc. ..	..	..	159	..	..	159
		46	234	179	..	..	413
	Total ..	..	1,789	1,351	21	..	3,161
	Reserved lands.						
	Other produce.						
	Grass (thatch, korai, etc.) ..	..	..	..	7	..	7
	Unreserved lands.						
	Bamboos in number	..	..	835	29	..	864
	Other produce.	QRS.					
	Catechu	1,271	12,664	..	..	..	12,664
	Tamarind, soapnuts, gallnuts, nux-vomica, sheakoy, etc.	..	..	2,889	..	..	2,889
	Horns, honey, wax, gum, resin, skins, etc.	..	..	7	..	..	7
	Avaram, vembadam, etc., barks and fibres.	..	..	1,698	..	..	1,698
	Stones, gravel, earth, etc. ..	..	..	803	166	..	969
	Manure leaves, thorns, etc. ..	..	..	14	..	..	14
	Date and palmyra leaves ..	..	..	29	..	..	29
	Miscellaneous	..	..	33,087	..	..	33,087
		1,271	12,664	38,527	166	..	51,357
	Total ..	..	12,664	39,262	195	..	52,221
	Abstract from the Circle.						
	Bamboos in number	98,757	5,373	22,114	67	..	27,554
	Grazing and fodder grass ..		..	84,933	91	780	85,804
	Other produce	QRS. 7,662	24,151	62,081	179	..	86,411
	Grand total ..	..	29,524	1,69,128	337	780	1,99,769
Total Presidency ..	Bamboos	NO. 440,526	10,795	2,30,642	1,237	552	2,43,226
	Grazing and fodder grass ..	..	3	6,96,219	4,566	2,010	7,02,798
	Other produce	MDS. 86,574 QRS. 7,662	52,224	6,77,095	5,127	25,675	7,60,121
	Grand total, Presidency ..	..	63,022	16,03,956	10,930	28,237	17,06,145

ANNUAL FORM No. 78.

Forest Department, Madras Presidency.

ACCOUNT of timber and other produce cut or collected by Government Agency and brought to depôt, sold locally or otherwise disposed of during 1914–15.

District.	Balance at commencement of the year in forest and sale depôts.	Received during the year.	Total.	Disposed of during the year.	Balance on hand at close of the year in forest and sale depôts.
		TIMBER (CUBIC FEET).			
Northern Circle.					
Ganjām	(h) 5,315	(i) 56,449	(j) 61,764	(k) 47,468	(l) 14,296
Vizagapatam	159	2,331	2,490	2,422	68
Godāvari, Upper	6,470	54,453	60,923	57,992	2,931
Do. Lower	272	4,572	4,844	4,517	327
Kistna	..	280	280	280	..
Kurnool, East	1,924	21,916	23,840	20,930	2,910
Do. South	12,482	6,203	18,685	18,187	498
Do. West	10,038	103,825	113,863	99,222	14,641
Total ..	36,660	250,029	286,689	251,018	35,671
Central Circle.					
Bellary	751	2,184	2,935	2,503	432
Anantapur	..	32	32	32	..
Guntūr	36	234	270	270	..
Cuddapah, West	794	2,696	3,490	2,382	1,108
Do. East	1,557	4,111	5,668	4,279	1,289
Nellore	321	398	719	393	326
Chingleput	37	1,396	1,433	1,369	64
Chittoor	..	20	20	20	..
Total ..	3,496	11,071	14,567	11,348	3,219
Southern Circle.					
Vellore, North	1	1,502	1,503	1,483	20
Do. South	5,045	3,747	8,792	4,888	3,904
Arcot, South	31	592	623	31	592
Salem, North	93	4,289	4,382	4,048	334
Do. South	440	3,602	4,042	3,280	762
Trichinopoly	* 42	120	162	123	39
Madura	* 1,145	2,347	3,492	2,342	1,150
Tinnevelly	155	3,139	3,294	2,882	412
Total ..	6,952	19,338	26,290	19,077	7,213
Western Circle.					
South Canara	8,263	12,833	21,096	6,888 (a) 2,377 (b) 298	11,533
Malabar, North	45,463 (f) + 912	87,479	133,854	97,950 (a) 3,352 (b) 14,182 (c) 385 (e) 2,129	15,856
Do. South	84,070	159,404	243,474	71,373 (a) 1,927 (b) 474	169,700
The Nilgiris	869	51,908	52,777	34,697 (b) 464	17,616
Kollegal	894 (f) — 2	3,261 (c) 385	4,538	876 (d) 2,496 (a) 326 (b) 37	803
Coimbatore North	5,309	8,348 (d) 2,496	16,153	8,580 (a) 2,407 (b) 768	4,398
Do. Central	839	2,792	3,631	2,373 (b) 20	1,238
Do. South	300,495	111,096	411,591	23,305 (a) 2,394 (b) 2,298	383,594
Total ..	447,112	440,002	887,114	282,376	604,738
Grand total ..	494,220	720,440	1,214,660	563,819	650,841

* Revised figure furnished by the Collector.
(a) Used departmentally.
(b) Written off the accounts.
(c) Transferred from North Malabar to Kollegal.
(d) Transferred from Kollegal to North Coimbatore.
(e) Transferred from Central Coimbatore to South Coimbatore.
(f) Deficit in conversion or re-measurement.
(h) Excludes 19 cubic feet belonging to Parlākimedi maliahs.
(i) Do. 817 do. do. do.
(j) Do. 836 do. do. do.
(k) Do. 717 do. do. do.
(l) Do. 119 do. do do.

Account of timber and other produce cut or collected by Government Agency and brought to depôt, sold locally or otherwise disposed of during 1914-15—*cont.*

District.	Balance at commencement of the year in forest and sale depôts.	Received during the year.	Total.	Disposed of during the year.	Balance on hand at close of the year in forest and sale depôts.
			FUEL (CUBIC FEET).		
Northern Circle.					
Ganjām	1,189	10,980	12,169	11,119	1,050
Vizagapatam	* 2,650	105,100	107,750	107,278	472
Gōdāvari, Upper	2,869	2,000	4,869	2,468	2,401
Do. Lower	3,645	39,631	43,276	43,276	..
Kistna	..	47,600	47,600	47,600	..
Kurnool, East	..	261	261	261	..
Do. South	341,105	65,974	407,079	242,895	164,184
Do. West	46,613	597,389	644,002	482,444	161,558
Total ..	398,071	868,935	1,267,006	937,341	329,665
Central Circle.					
Bellary	1,950	5,105	7,055	6,735	320
Anantapur	125	..	125	125	..
Guntūr	2,610	295	2,905	2,905	..
Cuddapah, West	12,400	1,400	13,800	9,500	4,300
Do. East	31,086	14,224	45,310	42,484	2,826
Nellore	7,221	13,723	20,944	17,265	3,679
Chingleput	..	981	981	981	..
Chittoor	..	335	335	335	..
Total ..	55,392	36,063	91,455	80,330	11,125
Southern Circle.					
Vellore, North	1,732	6,164	7,896	7,856	40
Do. South	17,707	122	17,829	11,529	6,300
Arcot, South	849	4,222	5,071	4,921	150
Salem, North	..	380	380	380	..
Do. South	..	8,565	8,565	8,460	105
Trichinopoly	527	29,433	29,960	22,520	7,440
Madura	240	3,650	3,890	3,890	..
Tinnevelly	996	9,758	10,754	6,629	4,125
Total ..	22,051	62,294	84,345	66,185	18,160
Western Circle.					
South Canara	373,367	168,556	541,923	441,007 (*a*) 2,349 (*b*) 14,149	84,418
Malabar, North	18,308 (*d*) + 19	16,422	34,749	13,167 (*b*) 290 (*c*) 12	21,280
Do. South	..	22,560	22,560	16,396	6,164
The Nilgiris	185,503	348,551	534,054	319,697 (*b*) 1,152	213,205
Kollegal	242,490 (*d*) + 2,100	43,500	288,090	183,110	104,980
Coimbatore, North	103,245	31,785	135,030	106,485	28,545
Do. Central	400	8,535	8,935	7,253	1,682
Do. South	46,700	240	46,940	38,275 (*b*) 7,510	1,155
Total ..	972,132	640,149	1,612,281	1,150,852	461,429
Grand total ..	1,447,646	16,07,441	30,55,087	22,34,708	820,379

* The difference in opening balance is due to revised figures furnished by Collector.

(*a*) Used departmentally.
(*b*) Written off the accounts.
(*c*) Deficit in conversion or re-measurement.
(*d*) Added or deducted as per revised figures furnished by Collectors.

Account of timber and other produce cut or collected by Government Agency and brought to depôt, sold locally or otherwise disposed of during 1914–15—*cont.*

District.	Balance at commencement of the year in forest and sale depôts.	Received during the year.	Total.	Disposed of during the year.	Balance on hand at close of the year in forest and sale depôts.
		BAMBOOS (NUMBER).			
Northern Circle.					
Ganjām	(*e*) 2,205	9,820	(*e*) 12,025	(*e*)11,425	600
Vizagapatam	..	245,375	245,375	244,000	1,375
Gōdāvari, Upper	1,825	25,750	27,575	27,150	425
Do. Lower	..	26,820	26,820	26,820	..
Kistna	..	..	..	..	..
Kurnool, East	200	3,653	3,853	3,367	486
Do. South	92	35,015	35,107	33,507	1,600
Do. West	..	5,350	5,350	5,350	..
Total	4,322	351,783	356,105	351,619	4,486
Central Circle.					
Bellary	75	1,650	1,725	1,397	328
Anantapur	..	..	..	..	..
Guntūr	..	..	..	..	..
Cuddapah, West	..	..	..	..	..
Do. East	..	9,630	9,630	8,320	1,310
Nellore	..	..	..	..	..
Chingleput	..	..	..	..	..
Chittoor	..	920	920	920	..
Total	75	12,200	12,275	10,637	1,638
Southern Circle.					
Vellore, North	..	..	..	..	..
Do. South	..	..	..	..	..
Arcot, South	..	1,050	1,050	1,050	..
Salem, North	..	120	120	120	..
Do. South	..	650	650	350	300
Trichinopoly	..	..	..	..	..
Madura	..	..	..	..	..
Tinnevelly	459	1,882	2,341	2,341	..
Total	459	3,702	4,161	3,861	300
Western Circle.					
South Canara	2,024	3,810	5,834	4,059 (*a*) 175 (*b*) 764	836
Malabar, North	4,760	23,604	28,364	21,859 (*a*) 640 (*b*) 1,195 (*c*) 350	4,320
Do. South	12,517	45,741	58,258	30,047 (*a*) 3,325 (*b*) 247	24,639
Kollegal	37,008 (*d*) + 100	20,957	58,065	39,341 (*a*) 110	18,614
Coimbatore, Central	..	4,645	4,645	4,435	210
Total	56,409	98,757	155,166	106,547	48,619
Grand total	61,265	466,442	527,707	472,664	55,043

(*a*) Used departmentally.
(*b*) Written off the accounts.
(*c*) Deficit in conversion or re-measurement.
(*d*) Added or deducted as per revised figures furnished by Collectors.
(*e*) Excludes 1,764 bamboos belonging to Parlakimedi maliahs.

Account of timber and other produce cut or collected by Government Agency and brought to depôt, sold locally or otherwise disposed of during 1914–15—*cont.*

District.	Balance at commencement of the year in forest and sale depôts.	Received during the year.	Total.	Disposed of during the year.	Balance on hand at close of the year in forest and sale depôts.
MINOR PRODUCE (MAUNDS OF 28 LBS.).					
Northern Circle.					
Ganjam	206	166	372	369	3
Vizagapatam	..	5,499	5,499	66	5,433
Godavari, Upper	39,796	9,468	49,264	9,101	40,163
Do. Lower	71	10,178	10,249	10,249	..
Kistna	130	451	581	379	202
Kurnool, East	1,701	3,095	4,796	3,020	1,776
Do. South	147	..	147	147	..
Do. West	482	3,246	3,728	3,008	720
Total	42,533	32,103	74,636	26,339	48,297
Central Circle.					
Bellary	1	..	1	1	..
Anantapur	10	7	17	9	8
Guntūr	5,215	4,143	9,358	8,493	865
Cuddapah, West	..	..	..	..	..
Do. East	1,775	..	1,775	1,769	6
Nellore	4,309	10,522	14,831	13,947	884
Chingleput	92	..	92	92	..
Chittoor	..	..	..	..	..
Total	11,402	14,672	26,074	24,311	1,763
Southern Circle.					
Vellore, North	294	575	869	624	245
Do. South	3	..	3	3	..
Arcot, South	..	1,820	1,820	1,327	493
Salem, North	..	..	..	..	..
Do. South	..	..	..	..	..
Trichinopoly	8	358	366	38	328
Madura	7	..	7	7	..
Tinnevelly	..	37,052	37,052	37,049	3
Total	312	39,805	40,117	39,048	1,069
Western Circle.					
South Canara	1,179	1,271	2,450	1,551 (*b*) 899	..
Malabar, North	1	315	316	311	5
The Nilgiris	23	336	359	355 (*b*) 3	1
Kollegal	1,549 (*d*) — 41	1,780	3,288	1,435 (*b*) 19	1,834
Coimbatore, North	2,880	3,761	6,641	4,961 (*b*) 83	1,597
Do. Central	133	8	141	133 (*c*) 3	5
Do. South	105	191 (*c*) 3	299	132 (*a*) 16 (*b*) 49	102
Total	5,829	7,665	13,494	9,950	3,544
Grand total	60,076	94,245	154,321	99,648	54,673

(*a*) Used departmentally.
(*b*) Written off the accounts
(*c*) Transferred from Central Coimbatore to South Coimbatore.
(*d*) Added or deducted as per revised figures furnished by Collectors.

Annual Form No. 79.

Forest Department, Madras Presidency.

Statement showing the value of timber and other produce at sale depôts for 1914–15.

District.	Description of timber or produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year
	Northern Circle.			RS.			RS.	RS.	RS.
Ganjām	Timber	..	(a) 3,217	(b) 2,033	..	(c) 9,025	(d 6,209	(e) 4,176	..
	Fuel	..	96	3	..	..	..	..	3
	Bamboos	(f)2,205	..	(g) 16	..	..	..	..	16
	Minor produce	MDS. 127	..	1,476	MDS 3	..	36	..	1,440
Vizagapatam.	Timber	..	143	48	..	68	20	..	28
	Fuel	..	* 152	19	..	472	59	40	..
	Bamboos	..	..	..	1,375	..	32	32	..
	Minor produce	..	..	..	..	..	..	..	..
Gōdāvari, Upper.	Timber	..	..	..	..	..	..	..	..
	Fuel	..	..	..	..	..	..	..	..
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	..	..	..	..	..	..	..	..
Gōdāvari, Lower.	Timber	..	..	..	..	..	..	..	..
	Fuel	..	..	..	..	..	..	..	..
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	..	..	..	..	..	..	..	..
Kistna	Timber	..	..	..	..	..	..	..	..
	Fuel	..	..	..	..	..	..	..	..
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	..	..	..	..	..	..	..	..
Kurnool, East.	Timber	..	..	..	..	..	..	..	..
	Fuel	..	..	..	..	..	..	..	..
	Bamboos		..	..	..	..	..	..	..
	Minor produce	..	..	..	..	..	..	..	..
Kurnool, South.	Timber	..	12,482	9,561	..	498	527	..	8,834
	Fuel	..	341,105	15,792	..	164,184	6,552	..	9,240
	Bamboos	92	..	2	1,600	..	21	19	..
	Minor produce	MDS. 147	..	526	..	..	..	..	526
Kurnool, West.	Timber	..	..	..	..	..	..	..	..
	Fuel	..	27	10	..	1,469	275	265	..
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	MDS. 345	..	77	MDS. 637	..	288	211	..
	Central Circle.								
Bellary	Timber	..	..	..	..	..	..	..	..
	Fuel	..	1,950	56	..	..	..	..	56
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	..	..	..	..	..	..	..	..
Anantapur	Timber	..	..	..	..	..	..	..	..
	Fuel	..	125	8	..	..	..	..	3
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	MDS. 10	..	40	..	..	..	..	40

* The difference in opening balance is due to revised figures furnished by Collector.

(a) Excludes 19 cubic feet of timber belonging to Parlākimedi maliahs.
(b) Do. Rs. 28 being value of 19 cubic feet timber belonging to Parlākimedi maliahs.
(c) Do. 120 cubic feet of timber belonging to Parlākimedi maliahs.
(d) Do. Rs. 166 do. do.
(e) Do. Rs. 138 do. do.
(f) Do. 1,764 bamboos belonging to Parlākimedi maliahs.
(g) Do. Rs. 42-8-0 being the value of bamboos belonging to Parlākimedi maliahs.

Statement showing the value of timber and other produce at sale depôts for 1914-15—*cont.*

District.	Description of timber or produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		Number	Cubic feet.	Value	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.
	Central Circle—cont.			RS.			RS.	RS.	RS.
Guntūr	Timber	..	..	..	..	..	..	..	..
	Fuel	..	..	..	..	..	..	..	..
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	MDS. 2,135	..	267	..	..	..	..	267
Cuddapah, West.	Timber	..	794	794	..	..	..	..	794
	Fuel	..	10,000	200	..	..	..	..	200
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	..	..	..	..	..	..	..	..
Cuddapah, East.	Timber	..	..	..	..	..	..	..	..
	Fuel	..	..	..	..	..	..	..	..
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	MDS. 1,436	..	370	..	..	..	..	370
Nellore	Timber	..	..	..	..	..	..	..	..
	Fuel	..	..	..	..	..	..	..	..
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	MDS. 3,949	..	1,268	MDS. 884	..	720	..	548
Chingleput.	Timber	..	..	..	..	..	..	..	..
	Fuel	..	..	..	..	..	..	..	..
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	..	..	..	..	..	..	..	..
Chittoor	Timber	..	81	13	..	..	..	..	13
	Fuel	..	..	..	..	..	..	..	..
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	MDS. 45	..	28	..	..	..	..	28
	Southern Circle.								
Vellore, North.	Timber	..	1	1	..	20	4	3	..
	Fuel	..	838	73	..	40	2	..	71
	Minor produce	..	..	..	MDS. 191	..	84	84	..
Vellore, South.	Timber	..	4,553	75,776	..	2,939	47,024	..	28,752
	Fuel	..	807	50	..	400	25	..	25
	Minor produce	MDS. 3	..	12	..	..	..	..	12
Arcot, South	....	..	..	..	..	..	..	..	..
Salem, North.	Timber	..	93	850	..	334	1,272	422	..
Salem, South.	Timber	..	440	524	..	762	956	432	..
	Fuel	..	..	..	..	105	2	2	..
	Bamboos	..	..	..	300	..	7	7	..
Trichinopoly *cum* Tanjore.	Timber	..	* 42	406	..	39	589	133	..
	Fuel	..	311	36	..	7,440	275	239	..
	Minor produce	MDS. 7	..	1	MDS. 328	..	155	154	..
Madura	Timber	..	1,061	398	..	1,150	424	26	..
	Fuel	..	240	15	..	..	..	..	15
	Minor produce	MDS. 7	..	19	..	..	.	..	19
Tinnevelly *cum* Rāmnād.	Timber	..	142	188	..	412	784	596	..
	Fuel	..	1,016	56	..	4,125	237	181	..
	Bamboos	(a) 459	..	..	..	..	..	..	..
	Minor produce	MDS. (b)	..	4	MDS. 3	..	11	7	..

* Revised figure as per correct factor of conversion.

(a) Valueless being rotten. (b) Less than half a maund.

Statement showing the value of timber and other produce at sale depôts for 1914-15—*cont.*

District.	Description of timber or produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.
	Western Circle.			RS.			RS.	RS.	RS.
South Canara.	Timber	..	1,190	1,287	..	2,345	1,890	603	..
	Fuel	..	170,971	17,423	..	..	..	..	17,423
	Bamboos	449	..	49	..	..	..	..	49
North Malabar.	Timber	..	18,877	20,913	..	1,401	1,009	..	19,904
	Fuel	..	11,520	792	..	2,240	196	..	596
	Bamboos ..	3,565	..	321	1,441	..	130	..	191
	Minor produce ..	..	..	..	QRS. 5	..	228	228	..
South Malabar.	Timber	..	..	..	..	75	94	94	..
The Nilgiris.	Timber	..	847	256	..	330	161	..	95
	Fuel	..	53,291	4,260	..	28,958	2,461	..	1,799
Kollegal ..	Timber	..	428	285	..	660	360	75	..
	Fuel	..	240	5		..	..	..	5
	Bamboos	14,865	..	1,345	10,052	..	758	..	587
	Minor produce ..	QRS. 1,412	..	2,190	QRS. 1,304	..	1,530	..	660
North Coimbatore.	Timber	..	1,253	23,422	..	849	5,713	..	17,709
	Minor produce ..	QRS. 2,841	..	3,944	QRS. 1,597	..	2,243	..	1,701
Central Coimbatore.	Minor produce ..	..	..	..	QRS. 5	..	401	401	..
South Coimbatore.	Timber		69,624 (a)—62,515	86,028 —73,709	..	240	295	..	12,024
	Fuel	..	43,720	897	..	..	..	..	897
	Minor produce ..	QRS. 3	..	1	..	..	..	..	1
	Abstract.								
Northern Circle.	Timber	..	15,842	11,442	..	9,591	6,756	..	4,686
	Fuel	..	341,380	15,824	..	166,125	6,886	..	8,938
	Bamboos ..	2,297	..	18	2,975	..	53	35	..
	Minor produce ..	MDS. 619	..	2,079	MDS. 640	..	324	..	1,755
	Total value ..	..	..	29,363	..	..	14,019	..	15,344
Central Circle.	Timber	..	875	807	..	..	..	..	807
	Fuel	..	12,075	264	..	..	..	..	264
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce ..	MDS. 7,575	..	1,973	MDS. 884	..	720	..	1,253
	Total ..	..	..	3,044	..	..	720	..	2,324
Southern Circle.	Timber	..	6,332	78,143	..	5,656	51,053	..	27,090
	Fuel	..	3,212	230	..	12,110	541	311	..
	Bamboos ..	459	..	..	300	..	7	7	..
	Minor produce ..	MDS. 17	..	36	MDS. 522	..	250	214	..
	Total value ..	..	..	78,409	..	..	51,851	..	26,558
Western Circle	Timber ..	..	29,704	58,482	..	5,900	9,522	..	48,960
	Fuel ..	..	279,742	23,377	..	31,198	2,657	..	20,720
	Bamboos ..	18,879	..	1,715	11,493	..	888	..	827
	Minor produce ..	QRS. 4,256	..	6,135	QRS. 2,911	..	4,402	..	1,733
	Total value ..	..	..	89,709	..	..	17,469	..	72,240
	Grand total ..	..	..	200,525	..	..	84,059	..	1,16,466

(*a*) Stock in forest depôts wrongly included in the last year's return.

ANNUAL FORM No. 80.

Forest Department, Madras Presidency.

SUMMARY of Revenue of the different districts for the Forest year 1914–15.

ANNUAL

Forest Department

SUMMARY of Revenue of the different districts

Budget heads. (1)	Northern Circle. Direction. (2)	Ganjām. (3)	Vizagapatam. (4)	Gōdāvari, Upper. (5)	Gōdāvari, Lower. (6)	Kistna. (7)	Kurnool, East. (8)
Receipts.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Timber and other produce removed from the forests by Government Agency—							
(a) Timber	6	23,516	1,711	9,451	113	..	3,171
(b) Firewood	52	110	4,032	92	3,898	12	1
(c) Bamboos	..	8	5,867	2	1	..	..
(d) Sandalwood	..	..	..	..	..	..	..
(e) Grass and other mino produce	..	1,704	40	118	72	140	6,257
II. Timber and other produce removed from the forests by consumers or purchasers—							
(a) Timber	8	30,305	5,314	4,308	52,754	8,509	3,734
(b) Firewood and charcoal	2	21,184	1,867	1,241	58,275	46,558	628
(c) Bamboos	..	6,211	8,109	9,941	45,125	3,514	302
(d) Grazing and fodder grass	..	11,461	5,255	9,269	14,025	12,788	31,872
(e) Other produce	..	2,619	11,005	854	28,610	9,727	1,443
(f) Tree-owner's fees..	..	1,611	576	..	4,713	7,729	1,212
(g) Other items	..	..	..	..	..	..	..
(h) Commutation fees	..	..	..	28	..	..	..
III. Confiscated drift and waifwood	..	188	91	1,118	484	106	831
IV. Revenue from forests not managed by Govenment—							
(a) Revenue from shared and private forests.	..	..	..	..	..	..	..
V. Miscellaneous—							
(a) Fines and forfeitures	..	1,880	2,121	509	4,443	2,134	4,974
(b) Other sources	23	2,073	288	1,102	6,691	1,109	639
Total, Receipts ..	91	(a) 1,02,870	46,276	38,033	2,19,204	92,326	55,064

Budget heads.	Southern Circle. Direction. (22)	Working plans officer, Southern Circle. (23)	Vellore, North. (24)	Vellore, South. (25)	Arcot, South. (26)	Salem, North. (27)	Salem, South. (28)
Receipts.	RS.		RS.	RS.	RS.	RS.	RS.
I. Timber and other produce removed from the forests by Government Agency—							
(a) Timber	..	..	36	511	68	2,860	791
(b) Firewood and charcoal	..	..	223	59	800	38	23
(c) Bamboos	..	..	..	..	54	21	..
(d) Sandalwood	..	..	..	* 65,199	..	29	2
(e) Grass and other minor produce ..	..	..	104	..	34	..	..
II. Timber and other produce removed from the forests by consumers or purchasers—							
(a) Timber	..	..	12,992	11,407	12,250	8,021	10,034
(b) Firewood and charcoal	..	..	23,743	14,440	1,83,553	6,872	15,445
(c) Bamboos	..	..	13,994	36,886	237	15,363	32,127
(d) Grazing and fodder grass	..	..	23,753	30,419	29,332	32,145	20,502
(e) Other produce	557	..	21,616	18,055	22,691	28,266	24,876
(f) Rents for trees tapped.	..	..	5,962	1,715	1,121	1,035	237
(g) Other items	..	..	..	..	42	621	..
(h) Commutation fees	..	..	..	..	..	..	448
III. Confiscated drift and waif-wood	..	..	79	403	249	223	92
IV. Revenue from forest not managed by Government—							
(a) Revenue from shared and private forests.	..	..	..	..	..	..	..
V. Miscellaneous—							
(a) Fines and forfeitures	..	..	14,317	12,310	22,659	7,849	11,698
(b) Other sources	5		838	837	685	2,243	4,876
Total, receipts ..	562	..	1,17,657	1,92,241	2,73,775	1,05,586	1,21,151

(a) Excludes Rs. 15,520 being revenue realized in Parlākimedi Maliahs.

* Includes sale-proceeds of sandalwood of other districts as shown below :—
Vellore, North, Rs. 20.
Trichinopoly, Rs. 244.

NOTE.—(*Southern Circle*).—Revenue under " Direction " is distributed as follows :—
II. (e) Vellore, North, Rs. 557.
V. (b) Vellore, South, Rs. 4.
Madura, Re. 1.

Form No. 80.

Madras Presidency.

for the Forest year 1914–15.

			Central Circle.									
Kurnool, South. (9)	Kurnool, West. (10)	Total. (11)	Direction. (12)	Bellary. (13)	Anantapur. (14)	Guntūr. (15)	Cuddapah, West. (16)	Cuddapah, East. (17)	Nellore. (18)	Chingleput. (19)	Chittoor. (20)	Total. (21)
RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
8,698	19,834	66,500	..	309	..	4	544	1,707	11	39	15	2,629
9,936	12,641	30,774	..	317	5	55	73	1,210	3,230	46	73	5,009
84	5	5,967	..	1	2	..	..	3	..	..	..	6
..	..	..	..	364	..	..	..	..	..	..	..	364
117	1,586	10,034	..	1	..	156	..	1,084	14,563	..	15	15,819
15,454	203	1,20,589	..	12,406	16,261	12,913	6,584	14,117	8,638	9,028	12,440	92,387
8,141	12,130	1,50,026	..	9,732	3,315	33,434	9,416	20,664	1,09,217	14,034	15,720	2,15,532
25,009	11,630	1,09,841	..	212	..		3,245	5,081	7	92	4,610	13,247
8,975	26,395	1,20,040	..	46,788	34,001	84,774	17,878	18,181	61,901	13,236	22,395	2,99,154
6,838	11,163	72,259	..	48,863	97,023	17,917	14,659	7,960	27,022	12,519	44,928	2,70,891
2,335	13,774	31,950	..	18,493	13,124	5,396	1,686	1,861	4 630	3,675	2,542	51,407
..	..	..	..	..	..	..	..	228	..	..	..	228
..	..	28	..	..	..	..	..	..	..	..	..	..
2,022	673	5,513	..	174	346	230	706	816	716	92	137	3,217
..	..	..	..	..	..	..	..	..	..	..	..	..
7,136	7,762	30,959	..	10,103	10,475	18,682	5,615	9,521	14,454	6,802	7,389	83,041
1,702	2,286	15,913	321	848	344	1,301	484	3,197	29,124	773	797	37,189
96,447	1,20,082	7,70,393	321	1,48,611	1,74,896	1,74,862	60,890	85,630	2,73,513	60,336	1,11,061	10,90,120

				Western Circle.									
Trichinopoly *cum* Tanjore. (29)	Madura. (30)	Tinnevelly *cum* Ramnad. (31)	Total. (32)	Direction. (33)	South Canara. (34)	North Malabar. (35)	South Malabar. (36)	The Nilgiris. (37)	Kollegal. (38)	North Coimbatore. (39)	Central Coimbatore. (40)	South Coimbatore. (41)	Total. (42)
RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
..	16	402	4,684	..	3,253	76,437	1,14,719	10,224	163	398	..	36,097	2,41,291
925	199	171	2,438	..	30,185	859	587	27,519	5,149	3,196	161	588	68,239
..	..	42	117	..	430	1,736	2,748	..	913	..	54	..	5,881
86	..	..	65,316	95,749	11,987	..	..	2,730	..	6	10	..	1,10,482
3	176	143	460	39	13,193	65	..	870	2,999	6,114	642	961	24,883
15,761	4,688	2,663	77,816	..	20,502	16,702	3,558	1,258	8,880	4,040	4,852	1,628	61,420
1,24,722	26,426	73,425	4,68,626	..	21,660	5	9	2,415	1,078	8,975	26,882	4,577	65,601
2,287	2,610	417	1,03,921	..	2,708	135	983	2,360	370	7,825	5,115	804	20,300
27,638	21,604	6,858	1,92,251	..	11,165	2,568 * −44	1	10,065	21,367	29,111	7,105	3,551	84,889
22,547	33,723	25,923	1,98,254	330	29,012	3,910 * + 44	2,280	2,713	3,819	4,067	8,706	3,725	58,606
209	..	..	10,279	..	1,531	..	..	..	22	..	..	..	1,553
..	..	..	663	..	..	..	..	..	..	..	..	..	..
..	..	..	448	..	..	..	.	..	..	..	..	..	..
272	815	1,354	3,487	..	4,174	686	10	12	80	122	529	553	6,166
..	..	..	..	..	..	..	..	..	..	..	..	..	..
15,864	10,940	6,668	1,02,305	..	11,777	32	314	786	2,416	3,799	4,806	1,891	25,821
1,483	1,383	1,836	14,186	1,05,616	7,360	8,715	2,938	4,320	1,572	2,655	1,739	1,741	1,36,956
2,11,797	1,02,580	1,19,902	12,45,251	2,01,734	1,68,937	1,11,850	1,28,147	65,272	49,128	70,308	60,601	56,111	9,12,088

* Adjustment of the erroneous credit referred to in the return for 1913–14.

(*Western Circle*).—The Revenue under Direction is distributed as follows :—

I (*d*) Nilgiris, Rs. 450 ; Kollegal, Rs. 42,622 ; North Coimbatore, Rs. 52,677.
I (*e*) South Malabar, Rs. 14 ; North Vellore, Southern Circle, Rs. 25.
II (*e*) Relates to South Coimbatore.

V (*b*) North Malabar, Rs. 2,077 ; South Malabar, Rs. 7,025 ; Nilgiris, Rs. 27,242 ; Kollegal, Rs. 5 ; North Coimbatore, Rs. 6 ; South Coimbatore, Rs. 69,020 ; Direction, Rs. 241.

South Malabar V (*b*) includes Rs. 1,000 relating to North Malabar.

SUMMARY of expenditure of the different districts for the Forest year 1914–15.

Budget heads.	Direction.	Ganjām.	Vizagapatam.	Gōdāvari, Upper.	Gōdāvari, Lower.	Kistna.	Kurnool, East.	Kurnool, South.	Kurnool West.	Total.
NORTHERN CIRCLE.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Refunds and drawbacks ..	4	1,555	98	53	26	4,183	67	685	3,643	10,314
A. "*Conservancy and Works.*"										
I. Timber and other produce removed from the forests by Government Agency—										
(a) Timber	..	8,211	319	1,930	20	..	884	2,147	8,568	22,079
(b) Firewood and charcoal ..	21	271	2,446	59	478	224	..	2,088	4,309	9,896
(c) Bamboos	..	63	2,470	..	280	..	34	44	..	2,891
(d) Sandalwood ..	..	..	..	..	..	..	..	..	..	..
(e) Grass and other minor produce..	..	418	..	..	4	200	997	80	2,100	3,799
II. Timber and other produce removed from the forests by consumers or purchasers	..	6,070	4,972	3,642	12,215	1,933	6,286	6,689	10,522	52,329
III. Confiscated drift and waifwood	..	43	..	122	1,807	4	10	83	17	2,086
IV. Revenue from forests not managed by Government	..	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government	..	..	949	..	..	..	..	..	..	949
VI. Live-stock, stores, tools and plant—										
(a) Purchase of cattle.	..	..	..	..	..	..	..	..	264	264
(b) Feed and keep of cattle	..	2,448	1,105	1,089	..	..	8	83	3,653	8,386
(c) Stores, tools and plant	102	207	121	2,391	4,919	4,772	491	305	631	13,939
VII. Communications and buildings—										
(a) Roads and bridges	..	4,956	121	2,853	2,801	2,460	10,504	7,944	694	32,333
(b) Buildings ..	19	6,774	1,534	5,092	5,469	632	5,497	3,091	3,108	31,216
(c) Other works ..	..	328	45	871	86	151	937	510	168	3,096
VIII. Demarcation, improvement and extension of forests—										
(a) Demarcation ..	..	2,620	247	899	1,640	316	285	284	1,135	7,426
(b) Cost of forest settlement; compensation for land and rights.	..	..	..	..	..	..	..	..	..	..
(c) Surveys	144	699	..	1,909	2,143	993	1,050	2,476	1,146	10,560
(d) Working plans ..	..	..	..	..	80	..	..	..	14	94
(e) Sowing and planting	1,155	181	11	210	305	917	503	685	37,883	41,850
(f) Protection from fire	..	5,705	2,070	6,999	4,440	1,246	13,185	13,639	17,989	65,273
(g) Other works ..	..	..	2	10	193	6,586	636	1,910	3,526	12,863
X. Miscellaneous—										
(a) Law charges ..	..	2	..	..	..	..	..	..	..	2
(b) Other charges ..	1,027	740	1	1	22	14	..	111	63	1,979
Total, A. "Conservancy and Works"	2,468	(a)39,736	16,413	28,077	36,902	20,448	41,307	42,169	95,790	3,23,310
B. "*Establishments.*"										
I. Salaries—										
(a) Conservators	22,800	..	..	..	..	..	..	..	..	22,800
(b) Superior officers ..	2,212	9,924	15,291	10,340	7,800	6,427	6,994	8,697	14,245	81,930
(c) Subordinate Forest and Depot establishments.	..	21,752	7,322	13,459	15,143	9,794	15,279	21,998	21,957	1,26,704
(d) Office establishment ..	9,385	8,015	3,766	5,404	7,730	3,840	5,397	6,235	8,273	58,045
(e) Deputation and special allowances.	..	..	..	..	..	..	..	..	..	..

(a) Excludes Rs. 8,171 being expenditure incurred in the Parlākimedi Maliahs.

Summary of expenditure of the different districts for the Forest year 1914–15—*cont.*

Budget heads.	Direction.	Ganjām.	Vizagapatam.	Gōdāvari, Upper.	Gōdāvari, Lower.	Kistna.	Kurnool, East.	Kurnool, South.	Kurnool, West.	Total.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
NORTHERN CIRCLE—*cont.*										
B. "*Establishments*"—cont.										
II. Travelling allowances—										
(*a*) Conservators ..	2,785	..	..	..	..	..	..	290	..	3,075
(*b*) Superior officers ..	138	2,573	1,003	2,422	1,236	1,242	2,233	2,210	3,824	16,881
(*c*) Subordinate Forest and Depot establishments.	..	5,575	2,007	3,697	4,883	3,042	5,771	6,845	6,630	38,450
(*d*) Office establishment.	1,075	2,170	1,043	1,283	1,751	1,098	1,873	1,216	1,748	13,257
III. Contingencies—										
(*a*) Rents, rates and taxes.	133	127	47	88	293	239	170	179	150	1,426
(*b*) Official postage and service telegrams.	1,174	1,228	692	859	1,423	1,174	888	975	1,359	9,772
(*c*) Telephone charges ..	..	..	..	..	..	..	..	..	..	..
(*d*) Sundries	10,461	2,113	1,206	1,323	3,393	1,343	2,101	1,460	2,126	25,526
Total, B. "Establishment".	50,163	(*a*)53,477	32,377	38,875	43,652	28,199	40,706	50,105	60,312	3,97,866
Grand Total of Expenditure A and B.	52,631	93,213	48,790	66,952	80,554	48,647	82,013	92,274	1,56,102	7,21,176

Budget heads.	Direction.	Bellary.	Anantapur.	Guntūr.	Cuddapah, West.	Cuddapah, East.	Nellore.	Chingleput.	Chittoor.	Total.
CENTRAL CIRCLE.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Refunds and Drawbacks	..	747	2,146	1,054	1,631	611	3,068	965	461	10,683
A. "*Conservancy and Works.*"										
I. Timber, etc., removed from the forest by Government Agency—										
(*a*) Timber ..	..	..	..		201	299	..	..	..	500
(*b*) Firewood and charcoal.	..	67	..	— 4	..	104	— 13	..	..	154
(*c*) Bamboos ..	..	..	..	..	..	..	..	..	..	..
(*d*) Sandalwood ..	..	119	..	..	..		..	..	..	119
(*e*) Grass and other minor produce.	..	..	..	33	..	237	3,581	..	..	3,851
II. Timber, etc., removed from the forests by consumers, or purchasers.	..	2,901	1,975	6,941	4,063	9,607	3,754	4,310	2,358	35,909
III. Confiscated drift and waifwood.	..	1	7	..	23	31	..	..	..	62
IV. Forests not managed by Government—										
(*a*) Shared and private forests.	..	..	..	..	.	..	..	..	..	..
V Rent of leased forests and payments to shareholders in forests managed by Government.	..	8,000	..	..	..	..	..	..	..	8,000
VI. Live-stock, stores, tools and plant—										
(*a*) Purchase of cattle.	..	..	..	..	..	..	..	.	66	66
(*b*) Feed and keep of cattle.	..	..	..	..	..	..	449	22	..	471
(*c*) Stores, tools and plant.	207	353	306	534	213	715	1,762	535	356	4,981
VII. Communications and buildings—										
(*a*) Roads and bridges.	..	795	1,274	39	308	7,754	1,669	1,272	2,559	15,670
(*b*) Buildings ..	..	1,674	6,241	1,961	2,749	13,381	3,404	1,868	2,232	33,515
(*c*) Other works ..	..	159	1,280	75	.	307	414	54	386	2,675

(*a*) Excludes Rs. 29,155 being the cost of establishment in Parlākimedi Maliahs

Summary of expenditure of the different districts for the Forest year 1914–15—*cont.*

Budget heads.	Direction.	Bellary.	Anantapur.	Guntûr.	Cuddapah, West.	Cuddapah, East.	Nellore.	Chingleput.	Chittoor.	Total.
CENTRAL CIRCLE—*cont.*										
A. "*Conservancy and Works*"—cont.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
VIII. Demarcation, improvement and extension of forests—										
(*a*) Demarcation ..	..	1,421	1,830	937	678	2,520	1,792	1,314	2,711	13,203
(*b*) Cost of forest settlement; compensation for land and rights.	..	..	..	6,202	..	..	73	7	..	6,300
(*c*) Surveys (Local.	902	822	543	508	443	720	1,213	400	485	6,036
(*d*) Working plans.	675	..	..	..	..	..	..	..	..	675
(*e*) Sowing and planting ..	..	674	271	1,357	..	507	4,194	671	938	8,612
(*f*) Protection from fire ..	..	6,869	7,015	80	4,118	3,702	1,605	957	1,723	26,069
(*g*) Other works ..	..	13,547	11,319	9,787	4,156	3,649	6,684	8,666	13,648	71,456
IX. Miscellaneous—										
(*a*) Law Charges ..	..	..	..	..	..	..	565	..	..	565
(*b*) Other Charges.	..	135	969	128	232	330	386	96	52	2,328
Total A. "Conservancy and Works". ..	1,784	37,537	33,030	28,596	17,184	43,863	31,532	20,172	27,514	2,41,212
B. "*Establishments.*"										
I. Salaries—										
(*a*) Conservators ..	23,548	..	..	..	..	..	..	..	..	23,548
(*b*) Superior officers ..	3,862	15,468	16,393	5,468	3,159	11,330	18,706	3,802	19,983	98,171
(*c*) Subordinate Forest and Depot establishments.	1,122	19,000	16,744	12,102	13,790	19,287	19,049	6,866	14,829	1,22,789
(*d*) Office establishments.	9,080	5,890	5,647	5,854	4,791	6,407	13,327	3,455	5,618	60,069
(*e*) Deputation and special allowances.	..	..	..	..	..	..	..	..	..	..
(*f*) Exchange compensation allowances.	..	..	..	..	..	..	..	..	..	..
II. Travelling allowances—										
(*a*) Conservators ..	2,507	..	..	244	..	..	..	..	..	2,751
(*b*) Superior officers ..	138	1,514	1,324	1,567	1,254	2,173	1,880	1,599	2,353	13,802
(*c*) Subordinate Forest and Depot establishments.	111	5,170	5,422	3,821	4,231	4,831	4,206	1,973	3,935	33,700
(*d*) Office establishments.	763	1,420	1,502	1,223	849	1,114	2,719	779	929	11,298
III. Contingencies—										
(*a*) Rents, rates and taxes.	..	613	115	175	86	72	34	346	146	1,587
(*b*) Service postage and telegrams.	682	1,193	998	1,443	719	912	1,871	542	1,027	9,387
(*d*) Sundries	9,812	2,235	2,567	1,063	1,043	1,992	1,561	439	1,244	21,956
Total B. "Establishment".	51,625	52,503	50,712	32,960	29,922	48,118	63,353	19,801	50,064	3,99,058
Grand total of Expenditure.	53,409	90,040	83,742	61,556	47,106	91,981	94,885	39,973	77,578	6,40,27

Budget heads.	Direction.	Working plans officer, Southern Circle.	Vellore, North.	Vellore, South.	Arcot, South.	Salem, North.	Salem, South.	Trichinopoly *cum* Tanjore.	Madura.	Tinnevelly *cum* Rāmnād.	Total.
SOUTHERN CIRCLE.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Refunds and Drawbacks.	..	..	1,631	367	763	768	1,038	1,100	2,944	1,506	10,117
A. "*Conservancy and Works.*"											
I. Timber and other produce removed from the forests by Government Agency—											
(*a*) Timber ..	..	..	5	236	..	1,065	538	..	..	41	1,885
(*b*) Firewood and charcoal.	..	..	..	28	..	18	..	549	..	63	658
(*c*) Bamboos ..	..	..	..	..	42	15	..	..	..	60	117
(*d*) Sandalwood ..	..	..	..	3,695	..	847	222	245	..	..	5,009
(*e*) Grass and other minor produce.	..	..	20	..	..	..	..	28	..	74	122
II. Timber and other produce removed from the forests by consumers or purchasers.	..	..	2,221	2,464	2,276	1,687	4,251	2,800	2,789	2,926	21,414

Summary of expenditure of the different districts for the Forest year 1914-15—*cont.*

Budget heads.	Direction.	Working plans officer, Southern Circle.	Vellore, North.	Vellore, South.	Arcot, South.	Salem, North.	Salem, South.	Trichinopoly *cum* Tanjore.	Madura.	Tinnevelly *cum* Ramnad.	Total.
SOUTHERN CIRCLE—*cont.*	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
A. "Conservancy and Works"—cont											
III. Confiscated drift and waifwood.	..	..	3	12	15	29	7	..	1	..	67
IV. Forests not managed by Government— (a) Shared and private forests.	..	..	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government.	..	..	..	..	..	..	..	..	..	..	..
VI. Live-stock, stores, tools and plant—											
(a) Purchase of cattle.	..	..	..	..	..	..	..	..	..	..	..
(b) Feed and keep of cattle.	..	..	..	3	..	..	..	..	..	..	3
(c) Stores, tools and plant.	376	3	154	161	345	919	480	228	283	421	3,370
VII. Communications and buildings—											
(a) Roads and bridges.	..	..	3,617	4,140	429	2,886	5,332	2,792	8,364	2,353	29,913
(b) Buildings ..	..	..	3,391	4,793	1,819	5,518	8,680	6,304	6,116	6,956	43,577
(c) Other works ..	..	..	167	526	80	712	505	80	863	882	3,815
VIII. Demarcation, improvement and extension of forests—											
(a) Demarcation ..	..	..	9	212	107	448	989	605	3,408	781	6,559
(b) Cost of forest settlement; compensation for land and rights.	..	..	2,886	17	..	..	121	..	1,377	..	4,401
(c) Surveys { Local.	610	..	405	502	398	1,188	1,257	556	1,097	1,256	7,269
(c) Surveys { India.	..	..	.	..	..	..	..	..	..	..	..
(d) Working plans.	..	5,165	..	..	..	..	..	..		..	5,165
(e) Sowing and planting.	..	..	2,173	40	252	265	116	1,607	5,702	1,221	11,376
(f) Protection from fire.	..	..	725	2,330	186	3,227	2,270	875	4,336	5,444	19,393
(g) Other works ..	..	..	8,148	7,639	6,938	6,676	5,754	9,634	12,435	6,226	63,450
IX. Miscellaneous—											
(a) Law charges ..	..	..	..	..	..	..	6	..	..	..	8
(b) Other charges ..	..	..	24	284	1	239	45	..	7	78	676
Total, A. "Conservancy and Works".	986	5,168	23,948	27,082	12,888	25,739	30,573	26,303	46,778	28,782	2,28,247
B. "Establishment."											
I. Salaries—											
(a) Conservators ..	20,681	..	..	..	..	..	..	..	..	..	20,681
(b) Superior officers ..	2,212	9,329	6,686	11,850	3,987	17,710	6,950	6,473	19,071	15,000	99,268
(c) Subordinate Forest and Depot establishments.	1,720	2,815	10,579	14,203	9,632	13,861	13,099	14,161	18,581	18,032	1,16,713
(d) Office establishments.	8,145	1,835	3,565	5,725	5,101	6,335	5,328	6,464	6,455	5,331	54,284
(e) Deputation and Special allowances.	..	..	..	..	..	..	..	..	..	..	..
(f) Exchange compensation allowance.	..	..	..	..	..	..	..	..	..	..	..
II. Travelling allowances—											
(a) Conservators ..	1,379		..	..	..	..	..	..	..	451	1,830
(b) Superior officers ..	138	3,028	1,017	2,083	1,344	2,291	1,498	1,372	3,777	924	17,472
(c) Subordinate Forest and Depot establishments.	246	1,336	2,614	3,487	3,147	4,293	3,123	4,073	5,144	5,039	32,502
(d) Office establishments.	679	914	429	988	983	839	559	846	1,849	994	9,080
III. Contingencies—											
(a) Rents, rates and taxes.	..	..	193	294	288	175	67	148	345	201	1,711
(b) Official postage and telegrams.	996	252	818	1,084	1,158	1,572	635	1,320	1,399	1,248	10,482
(c) Telephone charges.	..	..	..		..	..		..	..	..	..
(d) Sundries	9,733	1,672	780	928	797	1,756	1,052	1,081	1,918	829	20,546
Total, B. "Establishment."	45,929	21,211	26,681	40,642	26,437	48,832	32,311	35,938	58,539	48,049	3,84,569
Grand Total of Expenditure	46,915	26,379	50,629	67,724	39,325	74,571	62,884	62,241	1,05,317	76,831	6,12,816

Summary of expenditure of the different districts for the Forest year 1914-15—*cont.*

Budget heads.	Direction.	South Canara.	North Malabar.	South Malabar.	The Nilgiris.	Kollegal.	North Coimbatore.	Central Coimbatore.	South Coimbatore.	Total.
WESTERN CIRCLE.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Refunds and Drawbacks	..	4,265	399	21	138	107	12	360	906	6,208
A. "Conservancy and Works."										
I. Timber and other produce removed from the forests by Government Agency—										
(*a*) Timber	—135	1,261	7,299	6,093	4,688	168	66	5	8,695	28,140
(*b*) Firewood and charcoal.	..	5,880	414	345	19,180	1,328	794	527	50	28,518
(*c*) Bamboos	..	166	1,068	3,930	..	597	..	53	..	5,814
(*d*) Sandalwood ..	262	309	..	..	299	3,733	5,447	2	..	10,052
(*e*) Grass and other minor produce.	..	2,378	22	..	451	1,997	3,282	1	707	8,838
II. Timber and other produce removed from the forests by consumers or purchasers.	..	6,706	307	88	862	1,842	2,585	1,819	2,037	16,246
III. Confiscated, drift and waifwood.	..	111	96	680	..	..	2	11	33	933
V. Rent of leased forests and payments to shareholders in forests managed by Government.	..	..	36	1,317	7,381	..	..	..	2,500	11,234
VI Live-stock, stores, tools and plant—										
(*a*) Purchase of cattle.	..	996	2,073	1,241	4,509	..	..	.	3,861	12,680
(*b*) Feed and keep of cattle.	..	4,118	11,545	18,683	22,021	..	..	156	13,245	69,768
(*c*) Stores, tools and plant.	735	337	904	1,125	1,691	273	738	86	4,858	10,747
VII. Communications and buildings—										
(*a*) Roads and bridges.	..	2,905	5,316	3,527	9,980	3,231	10,805	2,957	8,582	47,303
(*b*) Buildings	2	4,778	6,002	6,652	2,271	2,521	10,253	2,937	6,050	41,466
(*c*) Other works ..	..	673	2,196	1,241	835	1,072	1,903	134	127	8,181
VIII. Demarcation, improvement and extension of forests—										
(*a*) Demarcation ..	..	1,408	55	24	300	1,125	2,863	796	84	6,655
(*b*) Cost of Forest Settlement; compensation for land and rights.	..	..	3	..	1,74,849	1,202	..	316	2,850	1,79,220
(*c*) Surveys { Local.	— 76	376	601	385	761	798	473	732	1,302	5,352
(*c*) Surveys { India.	..	..	..	..	..	..	..	..	..	..
(*d*) Working plans ..	..	78		79	90	..	..	6		253
(*e*) Sowing and planting.	554	— 2	2,033	4,506	1,443	14	103	333	2,024	11,008
(*f*) Protection from fire.	..	4,420	7,454	2,753	3,758	3,059	3,223	2,371	2,328	29,366
(*g*) Other works ..	..	882	2,104	1,650	1,258	3,378	4,583	4,938	2,231	21,024
IX. Miscellaneous—										
(*a*) Law charges ..	..	1	..	..	3	8	104	..	..	116
(*b*) Other charges ..	127	256	133	174	4,702	310	32	244	313	6,291
Total, A. "Conservancy and Works."	1,469	38,037	49,661	54,493	2,61,332	26,656	47,256	18,424	61,877	5,59,205
"*B. Establihment.*										
I. Salaries—										
(*a*) Conservators	21,363	..	..		..	..	..	..	..	21,363
(*b*) Superior officers ..	3,562	8,190	5,273	8,975	21,196	3,265	18,000	5,276	21,147	94,884
(*c*) Subordinate Forest and Depot establishments.	1,286	19,982	15,210	7,278	17,590	9,611	15,021	11,355	10,262	1,07,595
(*d*) Office establishments ..	9,763	7,096	6,771	5,071	6,813	4,181	5,601	4,539	6,545	56,380
II. Travelling allowances—										
(*a*) Conservators	2,237	..	..		..	..	..	..	..	2,237
(*b*) Superior officers ..	138	1,714	2,094	2,482	2,528	1,289	2,591	1,356	3,007	17,199
(*c*) Subordinate Forest and Depot establishments.	115	4,622	3,072	1,844	2,682	2,093	3,388	3,919	2,138	23,873
(*d*) Office establishments ..	576	1,072	763	813	607	695	850	743	848	6,967
III. Contingencies—										
(*a*) Rents, rates and taxes.	69	104	86	57	765	622	35	59	97	1,894
(*b*) Official postage and telegrams.	612	1,601	612	616	534	360	744	410	1,007	6,496
(*c*) Telephone charges ..	..	..	..		..	..	..	..	337	337
(*d*) Sundries	12,013	2,245	2,416	1,927	1,111	1,473	1,278	1,088	3,086	26,637
Total, B. "Establishment."	51,734	46,626	36,297	29,063	53,826	23,589	47,508	28,745	48,474	3,65,862
Grand Total of Expenditure A and B	53,203	84,663	85,958	83,556	3,15,158	50,245	94,764	47,169	1,10,351	9,25,067

SUMMARY of receipts and expenditure during 1914-15 for each Circle and for the Presidency compiled in the Board's office from the Conservators' statements.

Budget heads.	Northern Circle.	Central Circle.	Southern Circle.	Western Circle.	Grand total, Presidency. 1914-15.	Grand total, Presidency. 1913-14.
1	2	3	4	5	6	7
RECEIPTS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Timber and other produce removed from the forests by Government Agency—						
(a) Timber	66,500	2,629	4,684	2,41,291	3,15,104	2,74,157
(b) Firewood and charcoal ..	30,774	5,009	2,438	68,239	1,06,460	1,46,036
(c) Bamboos	5,967	6	117	5,881	11,971	20,305
(d) Sandalwood..	..	364	65,316	1,10,482	1,76,162	1,52,375
(e) Grass and other minor produce.	10,034	15,819	460	24,883	51,196	50,387
Total, I ..	1,13,275	23,827	73,015	4,50,776	6,60,893	6,43,260
II. Timber and other produce removed from the forests by consumers, etc.—						
(a) Timber	1,20,589	92,387	77,816	61,420	3,52,212	3,92,655
(b) Firewood and charcoal ..	1,50,026	2,15,532	4,68,626	65,601	8,99,785	7,91,394
(c) Bamboos	1,09,841	13,247	1,03,921	20,300	2,47,309	2,44,212
(d) Grazing and fodder grass..	1,20,040	2,99,154	1,92,251	84,889	6,96,334	6,81,893
(e) Other produce	72,259	2,70,891	1,98,254	58,606	6,00,010	7,44,103
(f) Tree-owners' fees	31,950	51,407	10,279	1,553	95,189	1,04,204
(g) Other items	..	228	663	..	891	1,030
(h) Commutation fees	28	..	448	..	476	2,082
Total, II ..	6,04,733	9,42,846	10,52,258	2,92,369	28,92,206	29,61,573
III. Confiscated drift and waifwood ..	5,513	3,217	3,487	6,166	18,383	22,024
IV. Revenue from forests not managed by Government.	..	..	..	..	..	..
V. Miscellaneous—						
(a) Fines and forfeitures ..	30,959	83,041	1,02,305	25,821	2,42,126	2,41,411
(b) Other sources	15,913	37,189	14,186	1,36,956	2,04,244	1,80,574
Total, V ..	46,872	1,20,230	1,16,491	1,62,777	4,46,370	4,21,985
Grand Total, Receipts ..	7,70,393	10,90,120	12,45,251	9,12,088	40,17,852	40,48,842
EXPENDITURE.						
1. Refunds and drawbacks	10,314	10,683	10,117	6,208	37,322	43,814
A. Conservancy and Works.						
I. Timber and other produce removed from the forests by Government Agency—						
(a) Timber	22,079	500	1,885	28,140	52,604	56,465
(b) Firewood and charcoal ..	9,896	154	658	28 518	39,226	93,636
(c) Bamboos	2,891	..	117	5,814	8,822	10,572
(d) Sandalwood	..	119	5,009	10,052	15,180	15,598
(e) Grass and other minor produce.	3,799	3,851	122	8,838	16,610	29,544
Total, A-I ..	38,665	4,624	7,791	81,362	1,32,442	2,05,815
II. Timber and other produce removed from the forests by consumers or purchasers.	52,329	35,909	21,414	16,246	1,25,898	1,29,449
III. Confiscated drift and waifwood ..	2,086	62	67	933	3,148	2,821
V. Rent of leased forests and payments to shareholders in forests managed by Government.	949	8,000	..	11,234	20,183	16,621
VI. Live-stock, stores, tools and plant—						
(a) Purchase of cattle ..	264	66	..	12,680	13,010	9,664
(b) Feed and keep of cattle ..	8,386	471	3	69,768	78,628	78,783
(c) Stores, tools and plant ..	13,939	4,981	3,370	10,747	33,037	32,863
Total, A-VI ..	22,589	5,518	3,373	93,195	1,24,675	1,21,310

Summary of receipts and expenditure during 1914-15 for each Circle and for the Presidency compiled in the Board's office from the Conservators' statements—*cont.*

Budget heads	Northern Circle.	Central Circle.	Southern Circle.	Western Circle.	Grand total, Presidency. 1914-15.	Grand total, Presidency. 1913-14.
1	2	3	4	5	6	7
EXPENDITURE—*cont.*	RS.	RS.	RS.	RS.	RS.	RS.
A. Conservancy and Works—cont.						
VII. Communications and buildings—						
(a) Roads and bridges ..	32,333	15,670	29,913	47,303	1,25,219	1,29,723
(b) Buildings	31,216	33,510	43,577	41,466	1.49,769	1,77,604
(c) Other works	3,096	2,675	3,815	8,181	17,767	29,111
Total, A-VII ..	66,645	51,855	77,305	96,950	2,92,755	3,36,438
VIII. Demarcation, etc.—						
(a) Demarcation	7,426	13,203	6,559	6,655	33,843	28,429
(b) Cost of settlement ..	..	6,300	4,401	1,79,220	1,89,921	18,750
(c) Surveys. (1) Local ..	10,560	6,036	7,269	5,352	29,217	30,097
(2) India ..						7
(d) Working-plans	94	675	5,165	253	6,187	3,199
(e) Sowing and planting ..	41,850	8,612	11,376	11,008	72,846	1,03,047
(f) Protection from fire ..	65,273	26,069	19,393	29,366	1,40,101	1,34,269
(g) Other works	12,863	71,456	63,450	21,024	1,68,793	1,77,029
Total, A-VIII ..	1,38,066	1,32,351	1,17,613	2,52,878	6,40,908	4,94,827
IX. Miscellaneous—						
(a) Law charges	2	565	6	116	689	506
(b) Other charges	1,979	2,328	678	6,291	11,276	10,859
Total, A-IX ..	1,981	2,893	684	6,407	11,965	11,365
Total, A. Conservancy and Works, including Refunds.	3,33,624	2,51,895	2,38,364	5,65,413	13,89,296	13,62,460
B. Establishments.						
I. Salaries—						
(a) Conservators	22,800	23,548	20,681	21,363	88,392	86,057
(b) Superior officers	81,930	98,171	99,268	94,884	3,74,253	3,52,736
(c) Subordinate forest and depôt establishments.	1,26,704	1,22,789	1,16,713	1,07,595	4,73,801	4,55,399
(d) Office establishments ..	58,045	60,069	54,284	56,380	2,28,778	2,18,104
(e) Deputation and special allowance.	..	..	..	..	..	..
Total, B-I ..	2,89,479	3,04,577	2,90,946	2,80,222	11,65,224	11,12,296
II. Travelling allowances—						
(a) Conservators	3,075	2,751	1,830	2,237	9,893	12,095
(b) Superior officers	16,881	13,802	17,472	17,199	65,354	54,594
(c) Subordinate forest and depôt establishments.	38,450	33,700	32,502	23,873	1,28,525	1,28,915
(d) Office establishment ..	13,257	11,298	9,080	6,967	40,602	38,611
Total, B-II ..	71,663	61,551	60,884	50,276	2,44,374	2,34,215
III. Contingencies—						
(a) Rents, rates and taxes ..	1,426	1,587	1,711	1,894	6,618	7,180
(b) Official postage and telegrams.	9,772	9,387	10,482	6,496 * 337	36,474	40,648
(c) Sundries	25,526	21,956	20,546	26,637	94,665	84,143
Total, B-III ..	36,724	32,930	32,739	35,364	1,37,757	1,31,971
Total, B. Establishments ..	3,97,866	3,99,058	3,84,569	3,65,862	15,47,355	14,78,482
Grand Total Expenditure including Refunds and Drawbacks.	7,31,490	6,50,953	6,22,933	9,31,275	29,36,651	28,40,942
Surplus	38,903	4,39,167	6,22,318	— 19,187	10,81,201	12,07,900
Total ..	7,70,393	10,90,120	12,45,251	9,12,088	40,17,852	40,48,842

* Telephone charges.

Annual Form No. 81.

Forest Department, Madras Presidency.

Outstandings and Liabilities on account of Contractors and Disbursers for the Forest year 1914-15.

District.	Department debtor.			Department Creditor.			Balance due.	
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).
		RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	
Northern Circle.								
Direction, Northern Circle ..	..	2,358 9 2	2,358 9 2	51 4 4	2,426 7 8	2,477 12 0	119 2 10	..
Ganjām	..	(a)86,768 15 5	(b) 86,768 15 5	2,979 1 1	86,365 14 7	89,344 15 8	2,576 0 3	..
Vizagapatam	..	33,855 10 7	33,855 10 7	703 10 9	34,136 14 1	34,840 8 10	984 14 3	..
Gōdāvari, Upper	..	49,874 10 8	49,874 10 8	1,297 12 2	49,609 9 7	50,907 5 9	1,032 11 1	..
Do. Lower	..	70,210 11 1	70,210 11 1	1,870 15 8	69,967 9 1	71,838 8 9	1,627 13 8	..
Kistna	..	35,741 9 11	35,741 9 11	1,221 5 3	35,571 14 3	36,793 3 6	1,051 9 7	..
Kurnool, East	..	82,411 3 10	82,411 3 10	2,266 0 1	82,360 3 11	84,626 4 0	2,215 0 2	..
Do. South	..	81,658 11 5	81,658 11 5	1,859 13 3	81,296 4 3	83,156 1 6	1,497 6 1	..
Do. West	..	1,97,780 13 0	1,97,780 13 0	1,584 9 4	1,99,160 4 11	2,00,744 14 3	2,964 1 3	..
Total ..	..	6,40,660 15 1	6,40,660 15 1	13,854 7 11	6,40,895 2 4	6,54,729 10 3	14,068 11 2	..
Central Circle.								
Direction, Central Circle ..	..	593 10 3	593 10 3	103 14 11	528 2 7	632 1 6	38 7 3	..
Bellary	..	64,958 4 0	64,958 4 0	1,450 14 8	64,504 13 1	65,955 11 9	997 7 9	..
Anantapur	..	73,597 4 6	73,597 4 6	1,520 13 10	72,883 1 11	74,403 15 9	806 11 3	..
Guntūr	..	44,829 0 5	44,829 0 5	776 10 5	44,351 11 3	45,128 5 8	299 5 3	..
Cuddapah, West	..	44,271 14 11	44,271 14 11	750 7 10	45,452 8 5	46,203 0 3	1,931 1 4	..
Do. East	..	97,055 0 2	97,055 0 2	2,153 5 9	97,096 10 3	99,250 0 0	2,194 15 10	..
Nellore	..	69,505 2 7	69,505 2 7	888 3 2	70,902 9 11	71,790 13 1	2,285 10 6	..
Chingleput	..	34,707 6 9	34,707 6 9	1,002 8 1	34,918 0 10	35,920 8 11	1,213 2 2	..
Chittoor	..	59,176 3 10	59,176 3 10	395 1 8	59,842 5 2	60,237 6 10	1,061 3 0	..
Total ..	..	4,88,693 15 5	4,88,693 15 5	9,042 0 4	4,90,479 15 5	4,99,521 15 9	10,828 0 4	..
Southern Circle.								
Direction, Southern Circle ..	..	1,288 13 7	1,288 13 7	64 6 8	1,245 10 3	1,310 0 11	21 3 4	..
North Vellore .. .	..	43,012 12 0	43,012 12 0	562 6 10	43,628 9 10	44,191 0 8	1,178 4 8	..
Do. South .. .	..	60,154 5 3	60,154 5 3	2,015 11 7	59,292 6 7	61,308 2 2	1,153 12 11	..
Arcot, South	..	30,951 8 8	30,951 8 8	261 4 9	30,970 14 6	31,232 3 3	280 10 7	..
Salem, North	..	51,186 11 10	51,186 11 10	1,359 12 8	51,079 6 4	52,439 3 0	1,252 7 2	..
Do. South	..	59,695 3 5	59,695 3 5	2,277 3 4	60,482 7 7	62,759 10 11	3,064 7 6	..
Trichinopoly *cum* Tanjore ..	..	54,312 4 4	54,312 4 4	458 2 8	54,130 11 3	54,588 13 11	276 9 7	..
Madura	..	1,05,015 7 10	1,05,015 7 10	2,897 8 5	1,05,461 8 7	1,08,359 1 0	3,343 9 2	..
Tinnevelly *cum* Rāmnād .	..	66,440 10 8	66,440 10 8	1,395 9 4	65,921 4 11	67,316 14 3	876 3 7	..
Working Plans officer, Trichinopoly.	..	17,621 5 0	17,621 5 0	697 6 3	17,294 6 0	17,991 12 3	370 7 3	..
Total .	..	4,89,679 2 7	4,89,679 2 7	11,989 8 6	4,89,507 5 10	5,01,496 14 4	11,817 11 9	..
Western Circle.								
Direction, Western Circle ..	..	868 13 5	868 13 5	54 7 8	871 13 3	926 4 11	57 7 6	..
South Canara	..	81,731 12 11	81,731 12 11	2,436 14 5	80,892 0 1	83,328 14 6	1,597 1 7	..
North Malabar	..	72,343 0 8	72,343 0 8	1,617 12 3	74,691 8 4	76,309 4 7	3,966 3 11	..
South do.	..	69,549 3 0	69,549 3 0	1,413 14 5	70,143 5 1	71,557 3 6	2,008 0 6	..
The Nilgiris	..	1,04,605 4 0	1,04,605 4 0	2,807 5 1	1,05,382 15 8	1,08,190 4 9	3,585 0 9	..
Kollegal	..	50,926 14 11	50,926 14 11	2,413 6 6	49,331 11 5	51,745 1 11	818 3 0	..
North Coimbatore	..	87,253 15 6	87,253 15 6	2,910 2 3	86,894 13 4	89,804 15 7	2,551 0 1	..
Central do.	..	44,108 9 4	44,108 9 4	2,146 4 1	43,607 1 7	45,753 5 8	1,644 12 4	..
South do.	..	80,252 3 0	80,252 3 0	2,041 15 8	81,061 4 8	83,103 4 4	2,851 1 4	..
Total ..	..	5,91,639 12 9	5,91,639 12 9	17,842 2 4	5,92,876 9 5	6,10,718 11 9	19,078 15 0	..
Grand Total, Presidency ..	..	22,10,673 13 10	22,10,673 13 10	52,708 3 1	22,13,759 1 0	22,66,467 4 1	55,793 6 3	..

(a) Excludes Rs. 17,535 belonging to the Parlakimedi Maliahs.
(b) Excludes Rs. 830 belonging to the Parlakimedi Maliahs.

Accountant-General's Office,
Madras, 1st *September* 1915.

R. Srinivasa Ayyar,
Deputy Accountant-General.

Annual Form No. 82.

Forest Department, Madras Presidency.

REVENUE received and outstandings on account of revenue during 1914-15.

District.	Particulars.	Outstandings at commencement of year. RS. A. P.	Value of sales and other revenue during year. RS. A. P.	Total. RS. A. P.	Amount realized during year. RS. A. P.	Balance due to the department at end of year. RS. A. P.
Northern Circle.						
Direction	Timber and other forest produce.	..	91 0 0	91 0 0	91 0 0	..
Ganjām	Do.	(i) 11,559 11 10	(j) 99,122 5 2	(k)1,10,682 1 0	(l) 1,02,870 0 0	(a)(m)7,812 1 0
Vizagapatam	Do.	5,496 14 0	45,463 8 0	50,960 6 0	46,276 0 0	(b) 4,684 6 0
Gōdāvari, Upper	Do.	99 7 9	38,174 14 3	38,274 6 0	38,033 0 0	241 6 0
Do. Lower	Do.	16,622 8 0	2,31,876 8 11	2,48,499 0 11	2,19,204 0 0	(c) 29,295 0 11
Kistna	Do.	13,165 14 9	98,214 7 0	1,11,380 5 9	92,326 0 0 * 420 0 0	(d) 18,634 5 9
Kurnool, East	Do.	5,922 10 1	49,206 10 0	55,129 4 1	55,064 0 0	65 4 1
Do. South	Do.	3,808 12 5	1,03,913 11 6	(h)1,07,722 7 11	96,447 0 0	(e) 11,275 7 11
Do. West	Do.	8,508 8 8	1,17,388 7 4	1,25,897 0 0	1,20,082 0 0	5,815 0 0
	Total ..	65,184 7 6	7,83,451 8 2	8,48,635 15 8	7,70,393 0 0 * 420 0 0	77,822 15 8
Central Circle.						
Direction	Timber and other forest produce.	..	321 0 0	321 0 0	321 0 0	..
Bellary	Do.	45,663 5 3	1,14,492 8 8	1,60,155 13 11	1,48,611 0 0 (f)+ 120 0 0	11,424 13 11
Anantapur	Do.	2,24,698 11 9	88,527 9 0	3,13,226 4 9	1,74,896 0 0	1,38,330 4 9
Guntūr	Do.	20,995 0 10 (g) — 112 8 0	1,62,623 1 2	1,83,505 10 0	1,74,862 0 0	8,643 10 0
Cuddapah, West	Do.	3,365 4 5	62,326 15 3	65,692 3 8	60,890 0 0 (f) + 4 6 2	4,797 13 6
Do. East	Do.	19,903 1 10	81,861 14 0	1,01,764 15 10	85,630 0 0	16,134 15 10
Nellore	Do.	94,795 9 6	2,07,272 12 10	3,02,068 6 4	2,73,513 0 0	28,555 6 4
Chingleput	Do.	6,287 8 0 (g) — 50 0 0	61,738 3 10	67,975 11 10	60,336 0 0	7,639 11 10
Chittoor	Do.	12,265 3 6	1,50,786 3 10	1,63,051 7 4	1,11,061 0 0	51,990 7 4
	Total ..	4,27,973 13 1 (g) — 162 8 0	9,29,950 4 7	13,57,761 9 8	10,90,120 0 0 (f) + 124 6 2	2,67,517 3 6
Southern Circle.						
Direction	Timber and other forest produce.	..	562 0 0	562 0 0	562 0 0	..
Vellore, North . ..	Do.	20,352 9 0	1,35,469 13 4	1,55,822 6 4	1,17,657 0 0	38,165 6 4
Do. South	Do.	35,272 1 10	2,39,023 10 7	2,74,295 12 5	1,92,241 0 0	82,054 12 5
Arcot, South	Do.	26,620 13 5	2,62,555 1 4	2,89,175 14 9	2,73,775 0 0	15,400 14 9
Salem, North	Do.	70,907 11 2	87,468 2 4	1,58,375 13 6	1,05,586 0 0	52,789 13 6
Do. South	Do.	80,853 6 0	74,760 5 7	1,55,613 11 7	1,21,151 0 0	34,462 11 7
Trichinopoly *cum* Tanjore ..	Do	28,765 7 2	1,92,727 7 0	2,21,492 14 2	2,11,797 0 0	9,695 14 2
Madura	Do.	14,582 11 0	1,15,427 14 8	1,30,010 9 8	1,02,580 0 0	27,430 9 8
Tinnevelly *cum* Rāmnād ..	Do.	12,541 15 10	1,20,159 9 11	1,32,701 9 9	1,19,902 0 0	12,799 9 9
	Total ..	2,89,896 11 5	12,28,154 0 9	15,18,050 12 2	12,45,251 0 0	2,72,799 12 2
Western Circle.						
Direction	Timber and other forest produce.	..	241 0 0	241 0 0	241 0 0	..
South Canara	Do. ..	32,240 3 6	1,45,787 1 11	1,78,027 5 5	1,68,937 0 0 † 324 10 10	8,765 10 7
Malabar, North	Do. ..	4,525 0 3	1,22,089 15 1	1,26,614 15 4	1,14,927 0 0 † 76 14 0	11,611 1 4
Do. South	Do. ..	424 14 6	1,35,680 3 10	1,36,105 2 4	1,34,186 0 0	1,919 2 4
The Nilgiris	Do. ..	5,493 5 3	1,01,476 11 10	1,06,970 1 1	92,964 0 0 † 49 0 0	13,957 1 1
Kollegal	Do. ..	648 15 0	92,347 9 0	92,996 8 0	91,755 0 0	1,241 8 0
Coimbatore, North	Do. ..	5,189 5 6	1,30,391 12 7	1,35,581 2 1	1,22,991 0 0	12,590 2 1
Do. Central	Do. ..	11,229 4 10	70,552 15 10	81,782 4 8	60,601 0 0	21,181 4 8
Do. South	Do. ..	1,359 2 6	1,26,499 2 10	1,27,858 5 4	1,25,461 0 0	2,397 5 4
	Total ..	61,110 3 4	9,25,066 8 11	9,86,176 12 3	‡ 9,12,063 0 0 † 450 8 10	73,663 3 5
	Grand Total, Presidency.	8,44,002 11 4	38,66,622 6 5	47,10,625 1 9	40,18,821 15 0	6,91,803 2 9

* Written off the accounts as per Board's Proceedings, Forest No. 638, Rout., dated 27th July 1914.
† Written off the accounts. ‡ Excludes Rs. 25 relating to the North Vellore Division of the Southern Circle.
(a) Includes Rs. 1,612 due in 1915-16; Rs. 1,075 covered by deposit.
(b) Do. 4,385 due in 1915-16.
(c) Do. 26,089 do.
(d) Do. 18,048 do.
(e) Do. 7615 do.
(f) Amounts written off.
(g) Deductions on account of erroneous demand.
(h) Corrected in the Board's office.
(i) Excludes Rs. 545 belonging to Parlakimedi Maliahs.
(j) Do. 10,980 do.
(k) Do. 11,525 do.
(l) Do. 10,975 do.
(m) Do. 550 do.

Western Circle)—Out of the total outstanding of Rs. 73,663-3-5 the amount actually due on or before 30th June 1915 was Rs. 14,029-12-0.

ANNUAL FORM No. 83.

Forest Department, Madras Presidency.

FINANCIAL results of the year 1915–16.

District.	Timber and other produce removed from the forests by Government Agency.		Other Revenue.		Formation, protection and improvement of forests.	Total.	
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.
Northern Circle.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Ganjām	(a) 25,350	(b) 18,528	(c) 77,537	(d) 47,943	(e) 33,248	(f) 1,02,887	(g) 99,719
Vizagapatam	11,655	11,519	34,630	32,498	7,352	46,285	51,369
Gōdāvari, Upper	9,667	9,857	28,375	25,852	34,051	38,042	69,760
Do. Lower	4,084	7,116	2,15,124	65,606	21,595	2,19,208	94,317
Kistna	152	6,873	92,178	30,620	17,562	92,330	55,055
Kurnool, East	9,433	3,768	45,639	31,634	50,793	55,072	86,195
Do. South	18,848	7,208	77,615	45,287	46,237	96,463	98,732
Do. West	34,086	27,737	86,020	46,059	92,233	1,20,106	1,66,029
Total	1,13,275	92,606	6,57,118	3,25,499	3,03,071	7,70,393	7,21,176 (h) 10,314
Central Circle.							
Bellary	992	186	1,47,940	58,089	39,776	1,48,932	98,051
Anantapur	7	..	1,74,889	51,696	40,056	1,74,896	91,752
Guntūr	215	29	1,74,647	37,368	29,501	1,74,862	66,898
Cuddapah, West	617	201	60,273	32,507	19,738	60,890	52,446
Do. East	4,004	640	81,626	63,500	35,852	85,630	99,992
Nellore	17,804	3,568	2,55,709	64,184	36,480	2,73,513	1,04,232
Chingleput	85	..	60,251	23,414	19,230	60,336	42,644
Chittoor	103	..	1,10,958	47,976	36,279	1,11,061	84,255
Total	23,827	4,624	10,66,293	3,78,734	2,56,912	10,90,120	6,40,270 (h) + 10,683
Southern Circle.							
Vellore, North	383	115	1,17,851	27,884	26,304	1,18,234	54,303
Do. South	65,505	5,604	1,26,476	46,016	28,997	1,91,981	80,617
Arcot, South	956	192	2,72,819	31,322	11,477	2,73,775	42,991
Salem, North	2,948	3,664	1,02,638	55,866	36,515	1,05,586	96,045
Do. South	816	1,190	1,20,335	34,596	31,656	1,21,151	67,442
Trichinopoly *cum* Tanjore.	1,258	1,064	2,10,783	39,605	26,526	2,12,041	67,195
Madura	391	158	1,02,190	53,136	67,413	1,02,581	1,20,707
Tinnevelly *cum* Rāmnād.	758	585	1,19,144	47,974	34,957	1,19,902	83,516
Total	73,015	12,572	11,72,236	3,36,399	2,63,845	12,45,251	6,12,816 (i) + 10,117
Western Circle.							
South Canara	59,048	23,692	1,09,919	50,426	21,449	1,68,967	95,567
Malabar, North	79,097	20,200	35,860	31,976	40,683	1,14,957	92,859
Do. South	1,18,068	47,966	16,148	10,550	31,700	1,34,216	90,216
The Nilgiris	41,793	74,998	51,201	13,264	2,33,717	92,994	3,21,979
Kollegal	51,846	12,278	39,940	20,599	24,113	91,786	56,990
Coimbatore, North	62,391	16,248	60,630	33,642	51,787	1,23,021	1,01,677
Do. Central	867	1,293	59,764	30,073	22,801	60,631	54,167
Do. South	37,641	29,735	87,850	52,044	36,041	1,25,491	1,17,820
Total	4,50,751	2,26,410	4,61,312	2,42,574	4,62,291	9,12,063 * 25	† 9,31,275
Grand Total, Presidency.	6,60,868	3,36,212	33,56,959	12,83,206	12,86,119	40,17,827	29,36,651

* Belongs to North Vellore division of the Southern Circle.

† Includes Refunds.

(a) Excludes Rs. 520 belonging to Parlakimedi Maliahs.
(b) Do. 242 do.
(c) Do. 14,958 do.
(d) Do. 23,887 do.
(e) Do. 5,026 do.
(f) Do. 15,220 do
(g) Do. 29,155 do.
(h) Refunds and drawbacks.
(i) Refunds.

Annual Form No. 84.

Forest Department, Madras Presidency.

Statement of elephants and other live-stock during 1914–15.

Part I.

District.	On hand at the commencement of the year.		Number received during the year.	Number disposed of during the year.	On hand at the end of the year.		Total expenditure on maintenance during the year.		
	Number.	Value.			Number.	Value.			
(1) Elephants.									
Northern Circle.									
		RS.				RS.	RS.	A.	P.
Ganjām	(a) 3	5,450	..	..	(a) 3	(b) 5,450	(c) 2,448	5	10
Vizagapatam	1	1,500	..	..	1	1,500	1,104	10	5
Gōdāvari, Upper	1	900	1	..	2	3,700	1,083	15	4
Kurnool, West	2	3,100	..	..	2	3,100	1,575	10	6
Total ..	7	10,950	1	..	8	13,750	6,212	10	1
Central Circle—Nil.									
Southern Circlee—Nil.									
Western Circle.									
South Canara	..	..	8	..	8	17,150	1,485	5	7
Malabar, North	27	69,500	6	14	19	46,400	11,234	7	7
Do. South	24	81,800	3	4	23	76,100	13,654	11	6
The Nilgiris	48	1,04,000	20	14	54	1,37,900	20,363	12	7
Coimbatore, South ..	16	43,000	2	3	15	44,100	9,680	4	2
Total ..	115	2,98,300	39	35	119	3,21,650	56,418	9	5
Grand Total, Elephants ..	122	3,09,250	40	35	127	3,35,400	62,631	3	6
(2) Other live-stock.									
Northern Circle.									
Kurnool, South	30	1,500	..	20	10	1,500	903	0	0
Do. West	..	..	21	1	20		1,260	10	10
Total ..	30	1,500	21	21	30	1,500	2,163	10	10
Central Circle.									
Chittoor	2	34	2	..	4	113	..		
Southern Circle—Nil.									
Western Circle.									
South Canara	26	1,285	..	6	20	1,000	1,310	5	4
Malabar, North	2	200	..		2	200	463	12	10
Do. South . ..	38	1,657	..	12	26	1,026	2,629	13	2
The Nilgiris	15	900	..	4	11	460	2,453	5	3
Coimbatore, South	39	1,970	18	14	43	3,421	5,072	9	2
Total ..	120	6,012	18	36	102	6,107	11,929	13	9
Grand Total (Other Live stock), Presidency.	152	7,546	41	57	136	7,720	14,093	8	7

(a) Excludes two elephants belonging to Parlakimedi Maliahs.
(b) Excludes Rs. 4.500 being the value of two elephants belonging to Parlakimedi Maliahs.
(c) Excludes Rs. 1,989 being the maintenance charges of the two elephants belonging to Parlakimedi Maliahs.

ELEPHANTS gone off the list during the year 1914–15.

PART II.

District.	Names.	When purchased or otherwise obtained by Government.	Age.	How disposed of.
		ELEPHANTS GONE OFF DURING THE YEAR.		
		Northern Circle—Nil.		
		Central Circle—Nil.		
		Southern Circle—Nil.		
		Western Circle.		
			YRS.	
Malabar, North.	1. Emily	Captured on 23rd June 1899	34	Transferred to South Canara.
	2. Meenakshi ..	Born in April 1889	27	
	3. Sivaji	Captured on 15th December 1900	42	Killed by a wild tusker elephant.
	4. Hanuman ..	Do. 21st February 1905	25	Transferred to South Canara.
	5. Parvathi ..	Born on 22nd November 1911	3	Sold.
	6. Kenchi ..	Captured on 12th March 1913	6	
	7. Sceptre ..	Do. 15th February 1914	6	
	8. Kumaran ..	Do. 11th April ,, ...	7	
	9. Damayanti ..	Do. 28th ,, ,, ...	26	
	10. Nala	Do. 28th ,, ,, ...	3	Transferred to the Nilgiris.
	11. Dhrona	Do. 2nd May ,, ...	9	
	12. Satyabhama ..	Do. 13th ,, ,, ...	31	
	13. Valmiki ..	Do. 13th ,, ,, ...	9	
	14. Narada	Do. 13th ,, ,, ...	5	
Malabar, South.	1. Saraswathi ..	Do. 16th April 1914	23	
	2. Hyder Ali ..	Do. 12th March 1906	14	
	3. Bhagavathi ..	Do. 16th ,, 1913	21	
	4. Ganapathi ..	Do. 3rd ,, 1914	4	
The Nilgiris.	1. Joe	Do. 11th January 1909	17	
	2. Shah Jehan ..	Do. 12th May 1911	17	
	3. Menaka ..	Do. 4th July ,, ...	6	
	4. Timur	Do. 3rd March 1912	6	Sold.
	5. Soma	Do. 6th June 1911	8	
	6. Clive	Do. 7th March 1913	4	
	7. Hastings ..	Do. 10th ,, ,, ...	6	
	8. Moyar	Do. 13th April ,, ...	8	
	9. Pykara .. .	Do. 24th ,, ,, ...	4	
	10. Dupleix ..	Do. 19th ,, ,, ...	8	
	11. Kantaraj ..	Do. 26th ,, 1914	2	
	12. Emperor ..	Do. 6th March 1909	15	Transferred to South Canara.
	13. Lawrence ..	Do. 7th ,, 1913 .. .	5	Transferred to South Malabar.
	14. Sceptre ..	Do. 15th February 1914	6	Died.
Coimbatore, South.	1. Kalyani ..	Purchased on 4th October 1889	68	Do.
	2. Kapila	Captured on 29th June 1908	31	Transferred to Upper Gōdāvari.
	3. Kaveri	Do. 25th October 1914	8	Died.

ANNUAL FORM No. 85.

Forest Department, Madras Presidency.

ABSTRACT showing the value of stores, tools and plants for 1914-15.

District.	Buildings.				Stores.				Total.				Difference in value.	
	On hand at the commencement of the year.		On hand at the end of the year.		On hand at the commencement of the year.		On hand at the end of the year.		On hand at the commencement of the year.		On hand at the end of the year.		In favour of the year.	Against the year.
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.		
Northern Circle.		RS.		RS.		RS		RS.		RS.		RS.	RS.	RS.
Direction ..	1	740	1	1,600	333	3,352	418	2,879	334	4,092	419	4,479	387	..
Ganjām ..	147	55,048	149	56,214	(c)*2,488	(d)*8,545	(e)2,547	(f)7,918	2,635	63,593	2,696	64,132	(g) 539	..
Vizagapatam ..	86	11,044	88	10,952	* 1,351	* 2,877	1,473	2,753	1,457	13,921	1,561	13,705	..	216
Gōdāvari, Upper.	117	24,329	120	29,675	1,874	15,099	2,401	16,880	1,991	39,428	2,521	46,555	(a)7,127	..
Gōdāvari, Lower.	134	53,199	120	48,597	2,008	9,076	1,916	5,681	2,142	62,275	2,036	54,278	..	7,997
Kistna ..	63	6,651	51	5,825	2,417	8,484	1,533	7,669	2,480	15,135	1,584	13,494	..	1,641
Kurnool, East.	28	30,084	34	42,613	2,967	7,188	3,009	6,581	2,995	37,272	3,043	49,194	11,922	..
Do. South.	76	42,209	82	47,701	4,303	11,338	3,819	10,221	4,379	53,547	3,901	57,922	(a)4,375	..
Do. West.	*116	*1,01,408	110	85,448	* 5,820	* 14,681	5,460	13,137	5,936	1,16,089	5,570	98,585	..	17,504
Total ..	768	3,24,712	755	3,28,625	23,561	80,640	22,576	73,719	24,329	4,05,352	23,331	4,02,344	..	(b)3,008
Central Circle.														
Direction ..	..		..	..	240	2,930	243	2,787	240	2,930	243	2,787	..	143
Bellary ..	56	59,031	56	71,422	2,161	8,938	2,219	8,333	2,217	67,969	2,275	79,755	11,786	..
Anantapur ..	36	45,708	38	52,687	1,875	6,606	2,000	6,300	1,911	52,314	2,038	58,987	6,673	..
Guntūr ..	41	5,999	32	18,369	1,806	10,464	2,133	10,321	1,847	16,463	2,165	28,690	12,227	..
Cuddapah, West.	40	12,169	37	15,407	2,269	7,759	2,219	7,087	2,309	19,928	2,256	22,494	2,566	..
Cuddapah, East.	76	16,882	89	25,248	1,278	7,889	1,288	5,576	1,354	24,771	1,377	30,824	6,053	..
Nellore ..	43	33,878	43	33,160	44,697	42,615	44,795	38,817	44,740	76,493	44,838	71,977	..	4,516
Chingleput ..	41	11,218	33	10,934	1,707	5,348	2,474	12,040	1,748	16,566	2,507	22,974	6,408	..
Chittoor ..	45	17,950	52	18,198	2,493	5,917	2.572	5,944	2,538	23,867	2,624	24,142	275	..
Total ..	378	2,02,835	380	2,45,425	58,526	98,466	59,943	97,205	58,904	3,01,301	60,323	3,42,630	41,329	..
Southern Circle.														
Direction ..	..	..	..	..	159	2,934	178	2,715	159	2,934	178	2,715	..	219
North Vellore.	40	10,910	44	19,783	1,546	5,641	1,656	5,843	1,586	16,551	1,700	25,626	9,075	..
South do.	53	30,629	47	25,383	3,300	10,011	3,137	9,253	3,353	40,640	3,184	34,636	..	6,004
South Arcot ..	35	19,400	39	21,132	1,475	3,089	1,431	3,143	1,510	22,489	1,470	24,275	1,786	..
North Salem ..	85	41,928	88	43,286	1,931	7,529	2,397	6,400	2,016	49,457	2,485	49,686	229	..
South do. ..	52	26,188	56	32,273	2,508	7,033	2,618	6,870	2,560	33,221	2,674	39,143	5,922	..
Trichinopoly ..	35	16,751	30	20,782	3,481	10,239	3,054	8,722	3,516	26,990	3,084	29,504	2,514	..
Madura ..	107	69,791	111	73,697	3,439	6,795	3,372	6,309	3,546	76,586	3,483	80,006	3,420	..
Tinnevelly ..	83	43,055	83	47,870	1,929	4,866	1,907	4,703	2.012	47,921	1,990	52,573	4,652	..
Vernacular Training School.	..	..	..	..	335	1,481	499	1,677	335	1,481	499	1,677	196	..
Special working plans office	..	..	..	..	..	..	185	1,528	..	..	185	1,528	1,528	..
Total ..	490	2,58,652	498	2,84,206	20,103	59,618	20,434	57,163	20,593	3,18,270	20,932	3,41,369	23,099	..
Western Circle.														
Direction ..	1	78	1	74	844	6,309	380	4,987	845	6,387	381	5,061	..	1,326
South Canara ..	50	24,099	53	24,657	2,010	9,129	2,053	7,272	2,060	33,228	2,106	31,929	..	1,299
Malabar, North	68	36,835	72	39,270	3,613	6,979	9,832	6,856	3,681	43,814	9,904	46,126	2,312	..
Do. South.	40	34,505	46	39,907	1,591	5,270	1,640	5,713	1,631	39,775	1,686	45,620	5,845	..
The Nilgiris ..	65	35,910	67	39,195	1,634	12,472	1,483	13,611	1,699	48,382	1,550	52,806	4,424	..
Kollegal ..	34	28,224	35	28,733	4,696	7,663	4,833	6,618	4,730	35,887	4,868	35,351	..	536
Coimbatore, North.	65	51,325	71	57,533	3,157	11,212	3,429	11,213	3,222	62,537	3,500	68,746	6,209	..
Do. Central	57	21,694	55	24,036	7,654	8,338	7,665	8,404	7,711	30,032	7,720	32,440	2,408	..
Do. South.	65	34,449	66	32,527	7,334	17,006	3,826	11,630	7,399	51,455	3,892	44,157	..	7,298
Vernacular Training School.	..	..	..	..	330	1,083	328	1,267	330	1,083	328	1,267	184	..
Total ..	445	2,67,119	466	2,85,932	32,863	85,461	35,469	77,571	33,308	3,52,580	35,935	3,63,503	10,923	..
Grand Total, Presidency.	2,081	10,53,318	2,099	11,64,188	135,053	3,24,185	138,422	3,05,658	1,37,134	13,77,503	140,521	14,49,846	72,343	..

* Correct figures furnished by the Collector.

(a) Corrected in the Board's office. (b) Inserted in the Board's office.

(c) Excludes 563 items belonging to Parlākimedi Maliahs.

(d) Excludes Rs. 2,037 being the value of articles belonging to Parlākimedi Maliahs.

(e) Excludes 576 items belonging to Parlākimedi Maliahs.

(f) Excludes Rs. 2,303 being the value of articles belonging to Parlākimedi Maliahs.

(g) Excludes Rs. 266 in favour of the year on account of Parlākime i Maliahs.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—the following paper:—

Proceedings of the Board of Revenue (Land Revenue), Forest No. 161, dated 17th November 1915.

The Hon'ble Mr. H. F. W. GILLMAN, I.C.S.,

Commissioner of Land Revenue and Forests.

The Board submits to Government the progress report of Forest Administration in the Madras Presidency for the year ending 30th June 1915.

2. *Alteration in area.*—Some 44 square miles mostly in *South Malabar* (35 square miles) and *Vizagapatam* (eight square miles) were constituted reserved forests during the year.

There were also the following changes: (1) an increase of five square miles by rectification of boundaries in *Kistna*, (2) a decrease of 26 square miles by disafforestation of 11 square miles in *Kistna*, eight square miles in *Bellary*, two square miles in *Nellore* and five square miles in the districts of *Chingleput*, *Chittoor*, *North Vellore* and *South Arcot*, (3) a decrease of six square miles by correct computation of areas in *Nellore* and of three square miles on account of re-computation of areas of the reserves investigated by the Special Deputy Collector, Madura. The net result of these changes was an increase of 14 square miles in the total area of reserved forests which stood at 18,877 square miles at the close of the year. The area of reserved lands fell from 802 to 762 square miles. About four square miles were newly notified under section 4 of the Forest Act mainly in the districts of *Vizagapatam* (one square mile) and *Trichinopoly* (two square miles). Forty-four square miles were notified under section 16.

3. *Forest settlement.*—As in previous years, forest settlement work was mostly carried out by Revenue Divisional officers. Fourteen blocks covering an area of 498·98 square miles were pending settlement at the close of the year in the Northern Circle of which *Upper Gōdāvari* alone accounted for eight blocks with an area of 352 square miles. The area is large and the Collector is requested to issue instructions to the Revenue Divisional officers concerned to push on with the settlement work as rapidly as possible.

4. *Demarcation.*—The total length of boundaries at the close of the year was 36,990 miles (or 28 miles less than in the previous year) of which 1,772 miles do not require artificial demarcation The total length of artificially-marked boundaries at the close of the year was 34,644 miles of which 246 miles were demarcated for the first time during the year, against 221 miles in 1913–14. Five hundred and seventy-four miles remained still to be demarcated at the close of the year, principally in the districts of *Kollegal* and *Madura*. The length of old boundaries repaired during the year was 19,433 miles against 18,148 miles in the previous year, of which 12,400 miles were cleared by subordinates free of cost against 14,922 miles in 1913–14. The average cost per mile of fresh demarcation rose from Rs. 31–8–3 to Rs. 33–10–6, and the cost of repairs fell from Rs. 6-4–11 to Rs. 3–6–3. The cost of fresh demarcation increased in the Central and Southern Circles and the cost of repairs in the Western. These variations have not been explained. Conservators are requested to

see that explanations are given in future reports. The Special Deputy Collector appointed to re-investigate the settlement of certain reserves in the Palni hills completed his work on 6th February 1915. The demarcation of the new boundary between the *Nilgiris* and *Central Coimbatore*, the object of which is to transfer the lower half of the Nilgiri slopes to Central Coimbatore, was started in April last by an Extra Assistant Conservator of Forests specially appointed for the purpose. The work, which is reported to be of the most arduous character, is estimated to take about two years, and the Conservator states that as the Nilgiri railway has taken to using coal instead of wood, for the supply of which the scheme was started, he sees no advantage in carrying out the proposed transfer. A separate report is being called for in the matter.

5. *Surveys.*—The Survey of India surveyed topographically on the 2 inch 1 mile scale about 66 square miles in *South Vellore.* In accordance with the decision of the Board of Forestry that only the more valuable forests where comparatively intense working is required should be surveyed on the 4″ scale, the Government of India have called for final lists of the forest areas in this Presidency which are to be so surveyed. Now that the classification of forests according to the Forest Committee's report is nearly complete, Conservators of Forests have been requested to compile lists of the forests placed in the classes I and II for which a special survey is required, distinguishing between those which have been already surveyed on the 2″ scale and those which have not been surveyed but including only those areas for which maps on the 2″ scale are considered inadequate. The receipt of these lists is awaited. The Special Map officer, Mr. Descubes, completed the maps of *Ganjām*, *Kistna* and *Nellore* and prepared those of *Vizagapatam*, *Lower Gōdāvari*, *Guntūr* and *North Malabar*. He has yet to prepare the map of *Upper Gōdāvari* and re-draw the maps of *Cuddapah*, *Salem*, *Madura*, *Rāmnād* and *Tinnevelly* with reference to the alteration of the boundaries of forest divisions.

The index map of the Madras Presidency showing the limits of controlling and executive charges prepared by the Forest Map officer, Dehra Dun, was published during the year. It is stated that the maps of *South Canara* and *North Coimbatore* were published during the year, that the map of *South Malabar* will shortly be printed and that the Nilgiri map which was reported last year to be in the press has not yet appeared.

Mr. Curtis of the Madras Survey department surveyed 12 square miles of the Estates on the Anamalais. In G.O. Mis. No 1007, Revenue, dated 29th April 1915, the period of his deputation was extended up to the 15th June 1915. The work that still remains to be done is expected to take two more seasons.

Miscellaneous work such as survey of coupes, alignments of roads and fire lines, verification of boundaries, determination of village boundaries in panchayat areas, and preparation of coupe and working plan maps was done by departmental surveyors.

Management of Forests.

(1) *Regulation and management.*

6. *Working plans.*—Working plans covering an area of 329 square miles were sanctioned during the year and plans were under preparation or revision for 2,921 square miles. The position in regard to working plans is unsatisfactory as a large proportion of those previously sanctioned are either unworkable or out of date and need revision while there is still a huge area of forest, 6,650 square miles, for which no working plans have as yet been attempted. The best progress was made in the Southern Circle where a special working plans officer and establishment were entertained and worked throughout the year. Mr. C. C. Wilson, the Working Plans officer, prepared working plans for the sandal forests of the Chitteris which was sanctioned during the year and of the Javadis which was sanctioned after the close of the year. The latter plan which was based on a complete enumeration of all the sandal trees in the area, is the best of its kind that has ever been made and has revealed the enormous potential value of this sandal forest. Mr. Wilson also prepared reconnaisance reports for

sandal forests in *North Salem* and fuel areas in *Madura* all of which have been approved by the Conservator. There was no working plan staff in any of the other circles and as the preparation of plans had to be attended to by the District Forest officers in addition to their other duties, the outturn was only moderate. In the Northern Circle a preliminary working plan for the forests of the Bhadrāchalam range in the *Upper Gōdāvari* division was sanctioned during the year but otherwise little progress was made. The preliminary working plans for Marrigudem range and for the Rajahmundry and Polavaram ranges in the *Lower Gōdāvari* division have been returned to the Conservator for revision with reference to the final classification of forests in that division. In the Central Circle useful plans were sanctioned for the red sanders forests in *East Cuddapah* and *Chittoor*. There is a good deal to be done in other districts of this Circle especially *Bellary* and *Guntūr* where there are no working plans in operation and *West Cuddapah* where the existing plans are useless. In the Western Circle Mr. Cox completed an elaborate plan for the Eucalyptus plantations on the *Nilgiris* which was sanctioned. Much other preliminary work was got through but there is still enough in this Circle to occupy a working plans section for many years especially in *South Canara* and the *Coimbatore* Forest divisions. Mr. Hart, Extra Assistant Conservator of Forests is reported to have prepared a working scheme for the extraction of over-mature timber in the ghat forest exploitable by the Kasaragod river.

7. The Board recognises the great importance of compiling plans with as little delay as possible for all areas for which they are required and in the proposals for the re-organisation of the Forest department which it is about to submit to Government, provision has been made for a working-plans officer for each circle.

(2) *Communications and Buildings.*

8. The following statement compares the expenditure during the year on the construction and maintenance of roads, bridges and buildings in the four circles with that of the previous year:—

—	Roads and bridges.		Buildings.	
	1913–14.	1914–15.	1913–14.	1914–15.
	RS.	RS.	RS.	RS.
Northern Circle	31,588	32,333	43,789	31,216
Central Circle	11,764	15,670	37,122	33,510
Southern Circle	41,120	29,913	56,803	43,577
Western Circle	45,251	47,303	39,890	41,466
Total ..	1,29,723	1,25,219	1,77,604	1,49,769

The total expenditure on roads and bridges fell by Rs. 4,504 and that on buildings by Rs. 27,835. The decreased expenditure is due to the restriction of allotments owing mainly to the war. The Board has tentatively approved since the close of the year schemes for the construction of roads and buildings prepared by the Conservators of Forests in accordance with Mr. Beadon Bryant's recommendations. In November 1914, Messrs. A. J. Bright and F. J. Marshall were appointed temporary Engineers for the investigation and execution of forest roads and were engaged, the former on the Mount Stuart ghat road and on the Tekkadi tram trace and the latter on the survey of a road from Alangayam to Patrakad in the Javadis hills. All these works present considerable engineering difficulties and are of prime importance for the exploitation of teak in Mount Stuart and sandal and bamboos on the Javadis. No work beyond re-tracing and estimating was done by either of the temporary Engineers. Considerable progress was made in opening up the red sanders forests of *East Cuddapah* and *Chittoor* with cart-tracks and bridle-paths.

The tramway in *Coimbatore* was extended and worked at a profit of Rs. 2,416 against a loss of Rs. 754 in the previous year. The outturn of work was greater while the working charges appreciably decreased. The tramway in Nellore was not used departmentally but was lent to fuel contractors on terms provided in the felling

contracts. In the Sriharikota range only 609 tons of fuel were carried against 7,602 tons in the previous year owing to the failure of the felling contractor to carry out his agreement.

9. *Miscellaneous works.*—The expenditure under this head also decreased from Rs. 29,111 to Rs. 16,767. The chief works consisted as usual in fencing compounds and reserves and construction of, and repairs to, tanks and wells.

(3) *Protection of forests.*

10. The following table compares the forest offences reported during the year with those of 1913–14 and with the average of the three years ending 1913–14 :—

—	Injury to forests by fire.		Unauthorized felling and removal of forest produce.		Unauthorized grazing.		Other offences.		Total.		Average for three years ending 1913–14.
	1913–14.	1914–15.	1913–14.	1914–15.	1913–14.	1914–15.	1913–14.	1914–15.	1913–14.	1914–15.	
A. Cases taken to Court.	54	27	3,969	4,069	1,835	2,021	404	389	6,262	6,506	5,719
B. Cases compounded.	76	62	15,532	15,864	6,937	7,112	1,059	1,087	23,604	24,125	22,654
C. ,, undetected ..	1,056	788	577	716	261	362	17	44	1,911	1,910	1,848
Total ..	1,186	877	20,078	20,649	9,033	9,495	1,480	1,520	31,777	32,541	30,221

It will be seen that the total number of offences reported is 764 more than in the preceding year and 2,320 more than the average for the three preceding years. The number of offences in the Southern Circle is 44 per cent. and in the Central Circle 33 per cent. of the total. Forest crime is heaviest in the *South Arcot*, *Trichinopoly*, *Madura*, *Guntūr*, *Nellore*, *two Vellores* and *Chingleput* districts which return between them half of the total offences for the Presidency. The bulk of the reserved forests in these districts except *Madura* and *South Vellore* are scattered, of comparatively small area and contiguous to villages and cultivation. *South Arcot*, *Chingleput*, *Nellore* and *Trichinopoly* in particular are peppered all over with small reserves. This fact in itself is sufficient to explain the undue prevalence of forest crime in these districts. In the *Vellores*, there are many scattered reserves, while in *Madura* the steady denudation of zamindari forests and heavy demand for manure leaves for the Periyar area are causes which conduce to extensive illicit removals from the Government reserves. The measures already taken that will tend to reduce forest crime are the disafforestation of useless reserves and the transfer of grazing forests to panchayat management. These innovations which were commenced at the beginning of 1914 in consequence of the Forest Committee's report are being steadily introduced but will take a long time to carry through to completion and will affect reserves of minor importance only. They are not applicable to the more valuable forests where the prevention of crime cannot be tackled seriously until the department has been reorganised and unless some method can be devised of securing the co-operation of the people living in and adjacent to the forests in forest conservancy. The Board has recently laid before Government its conception of the measures that may advantageously be adopted to secure their co-operation.

11. The increase in the number of offences reported occurred under all heads except "injury to forests by fire". The number of offences of "illicit felling" and "illicit grazing" increased by 2·8 and 5·1 per cent. respectively. The increase in the number of offences under the former head occurred mainly in the districts of *Anantapur*, *Cuddapah*, *South Vellore*, *Trichinopoly* (in unreserves) and in *Madura*, while that under the latter head occurred chiefly in the districts of *Anantapur*, *Chingleput*, *South Vellore*, *South Arcot* and *South Salem*. The increase in the number of "other offences" is small and calls for no remarks. The number of cases of injury to forests by fire fell by 26 per cent. ; the decrease, which was spread over all districts except *Ganjām* and *Kurnool*, was specially marked in the Western Circle.

As usual offenders responsible for the majority of fires were not detected. Detection was poor in *Ganjām*, *Kurnool West* and *South*, *Anantapur*, *Madura* and *South Canara*.

12. The percentage of cases taken to court, compounded and undetected to cases reported was 19·99, 74·14 and 5·87 against 19·70, 74·29 and 6·01 in the previous year. The total number of cases disposed of by courts rose from 6,401 to 6,737 and the percentage of acquittals to cases prosecuted slightly increased from 7·5 to 7·9.

The number of offences compounded by District Forest officers and Revenue Divisional officers was about the same as in the preceding year, but the amount of compensation fees realized fell from Rs. 2,14,180 to Rs. 2,08,959. The average per case was Rs. 9–13–5 against Rs. 10–1–4 in the previous year.

13. The rules laid down by Government in G.O. No. 1990, Revenue, dated 13th June 1910, and No. 3958, Revenue, dated 14th December 1910, for the guidance of forest officers in compounding offences of illicit grazing have worked satisfactorily in all districts.

14. The closure of forests to grazing as a punishment for systematic offences on a large scale was not considered necessary in any district except *Tinnevelly*, *Chittoor* and *Nellore*.

15. Rewards amounting to Rs. 2,023 were granted to informers and forest subordinates against Rs. 890 in the previous year. It is reported that rewards were sanctioned in two cases in *North Salem* division but the amount is not specified. This information should be given in future reports.

16. *Protection from fire.*—The system of fire protection adopted in most districts was the same as in the previous year, viz., the clearing of exterior and interior fire lines and patrol by watchers. The system adopted in *South Kurnool* division in the previous year of clearing fire lines through the agency of purchasers of the felled trees was tried in *Kurnool West*, but found unsuitable. In the matter of protection, the results show an appreciable improvement over the previous year. In areas over which special protection was attempted the percentage of failure materially decreased from 11·57 to 6·6, only 409 out of a total of 6,193 square miles attempted having been burnt. The cost per square mile successfully protected was Rs. 23–9–8 against Rs. 22–8–8 in the previous year. The excellent results obtained in *North* and *South Vellore* and *North Salem* deserve special notice as they are attributed to the co-operation of Malayalis who live on the Javadi and Chitteri hills. The measures taken to secure the co-operation of the khonds in *Ganjām*, the Koyas and Reddis in *Upper Gōdāvari*, and the hill tribes in *Lower Gōdāvari* and *South Coimbatore* divisions to protect the forests from fire in return for rewards and grazing concessions are also said to have produced satisfactory results. The system of the grant of rewards to the Chentsus in *Kurnool* has recently been condemned by the special officer and the Collector and the matter is now under the consideration of the Board. In addition to the areas under special protection, the ordinary staff attempted to protect 9,336 square miles against 9,096 square miles in the previous year of which 9,069 square miles were successfully protected.

17. The following statement compares the number and the origin of the fires which occurred during the year with those of the preceding year :—

—	1913-14.		1914-15.	
	Number.	Area in acres.	Number.	Area in acres.
Fires originating in departmental fire conservancy operations.	81	17,065	88	20,161
Fires crossing exterior fire lines	183	226,029	174	164,934
Fires due to carelessness or accident	383	82,084	253	35,151
Fires originating from intention or malice	341	137,126	421	141,917
Fires due to unknown causes	762	253,976	457	92,110
Total ..	1,750	716,280	1,393	454,273

The number of fires and area burnt show a satisfactory decrease. The area maliciously fired was however greater than in the previous year in the *Kurnool East* and *South*, *Bellary*, *Anantapur*, *Cuddapah East* and *West* and *South Coimbatore* divisions. In cases of malicious firing detected in *North Salem*, *Tinnevelly* and *Trichinopoly*, the offenders were successfully prosecuted. The valuable forests in *North Malabar* and the Mudumalais in the *Nilgiris* which suffered severely last year were successfully protected. The results in three out of the four forest divisions in *Coimbatore* were unsatisfactory, nearly 90 per cent. of the fires in the Western Circle having occurred in those divisions alone. The three *Kurnools* were responsible for 31 per cent. of the fires in the presidency. The worst fire of the year was one which is said to have entered the Gudem range in *East Kurnool* from the *West Kurnool* division at four places and could not be controlled for nearly four days.

18. The Board regards the information about fire conservancy given in Circle reports as of little value and is now considering a suggestion made by Mr. Cox that special annual reports on this subject with fire maps attached should be submitted from every district in August and reviewed by the Board.

19. *Protection from cattle.*—3,380 square miles or 17 per cent. of the total area of reserved forests and reserved lands (19,639 square miles) were closed to all animals throughout the year and 102 square miles for part of the year against 3,242 and 104 square miles respectively in the previous year. 218 square miles of reserved forests and reserved lands were open to goats against 387 square miles open last year. Goats were completely excluded from the forests in the Northern, Southern and Western Circles and in the Central Circle the number is decreasing in accordance with the arrangement which gave the goat owners three years grace in which to reduce or dispose of their flocks. Goats alone were excluded over an area of 15,292 square miles and goats and sheep over 647 square miles against 15,169 and 763 square miles respectively. A grazing scheme for *the Nilgiri* district sanctioned in G.O. No. 1943, Revenue, dated 6th July 1914, was brought into force in the district during the current year. A grazing scheme for the *Guntūr* district was approved by Government in July last and is to take effect from the current forest year. In their Memorandum No. 833-E/15-2, Revenue, dated 10th June 1915, Government have decided to defer passing orders on the Udumalpet grazing scheme pending settlement of the general principles on which grazing in future is to be dealt with.

The total number of animals licensed to graze on payment rose from 3,875,000 to 3,898,811 and the number of cattle impounded from 190,714 to 208,393. The Conservator, Southern Circle, gives an interesting table to show the grazing incidence in each district based on the actuals of grazing permits and states that the large area open to grazing is undoubtedly the cause of much of the offence which takes place and that the forests have very little chance of improvement. The Conservator, Central Circle, also states that the general incidence of grazing is far too high to permit improvement of the forests in many parts of the Circle.

20. *Protection against injuries from natural causes.*—Spike disease continued its attacks upon sandal in *North Salem*, *Trichinopoly*, *Kollegal* and *North Coimbatore* and is reported to have spread throughout the working circles in the two latter divisions. Signs of spike are said to have been found at Kuttalam but the observation is yet to be confirmed. Measures are being taken to check the spread of spike in *Kollegal* but it is too early to judge of their efficacy. Several plantations in Nilambur range and the young plantations of Nedungayam suffered severely from teak defoliators; the experiments tried with two Andre Maire traps were unsuccessful; one of the traps was soon destroyed by elephants, and the other was probably not correctly adjusted as it failed to attract moths. In *Lower Gōdāvari* the casuarina trees attacked by root fungus in the Kandikuppa plantation were at once removed and sold. The campaign against lantana was continued as usual with no definite results. Damage by sambhur was noticed especially near Mundanthorai in *Tinnevelly* where they are numerous but the sambhur themselves have recently been found dying off in large numbers from a foot affection.

(4) *Sylviculture.*

21. *Natural reproduction.*—The year was on the whole favourable for natural reproduction. Important species seeded well and progress was marked in protected areas and areas closed to grazing. Sandal is spreading rapidly in this way in the known sandal tracts as the birds carry the seeds. The Conservator of Forests, Southern Circle, made the interesting discovery during a tour in the Javadi hills, in *North Arcot*, that germination takes place in August. Reproduction of red sanders from coppice in *Cuddapah* and *Chittoor* districts is excellent. The seeding of the larger bamboo (*Bambusa arundinacea*) is spreading over wide areas in *South Canara*, *Malabar* and *Coimbatore* and the *Nilgiris* and if the partial seeding is followed, as is probable, by a general seeding, it will be a serious thing later for the timber floating industry and interfere for some years with any bamboo pulping schemes.

22. *Artificial reproduction.*—765 acres were added and 3,277 acres were excluded from the area of regular plantations, showing a net decrease of 2,512 acres, the corresponding decrease in the previous year being 1,957 acres. Cultural operations were carried on over an area of 3,207 acres at a cost of Rs. 5,861 against 9,002 acres at a cost of Rs. 20,237, the decrease being general in all the circles. Following the policy recommended by Mr. Beadon Bryant, Inspector-General of Forests, in 1913, expenditure on artificial reproduction is being steadily reduced. It has decreased from Rs. 1,49,985 in 1912–1913 and Rs. 87,418 in 1913–1914 to Rs. 63,369 in the year under report. Of this no less than Rs. 35,380 was spent on teak plantations in *West Kurnool* division mainly with the object of finding employment for the Chentsus and thus keeping them from forest crime. These plantations have now practically reached their limits and very little further planting will be done. They are not likely to prove a profitable investment and part of the expenditure on them should properly be regarded as made in the interests of law and order and not of the forests. The figures given in Form No. 75 in the Southern Circle report are reported to be misleading and full of inaccuracies. This is probably true in the case of other circles also. The Conservator, Southern Circle, reports that the numerous plantations and topes attached to bungalows are shown in some districts as "regular plantations", in a few other districts as "taungya" and in some others under "cultural operations"; he has suggested that an additional heading 'topes' should be opened in the return, under which bungalow plantations may be shown. His suggestion has been referred to the other Conservators for remarks.

23. *Operations for the improvement of growing stock.*—The operations undertaken during the year consisted as in previous years of improvement fellings, thinnings, fencing, creeper cutting, removal of inferior species, dead and dying trees, parasites and noxious growth and weeds. The Conservator, Central Circle, remarks that provided the coupes can be subsequently protected from cattle there is no better preliminary method of restoration than that of cutting back the degraded scrub jungle which forms so large a portion of the forest area in the circle. Stone walling which is by far the most effective method of protection from trespass was carried out in *Bellary*, *Anantapur* and *Cuddapah* but as the cost was prohibitive it had to be abandoned in the first two of these divisions.

24. *Experiments.*—Successful experimental cultivation was carried out in the following districts.

Sandal in *Vizagapatam* and *Kistna*; *Swietenia Mahogani* in *Vizagapatam*, *Cuddapah* and *South Malabar*; *Dalbergia sissoo* in *Bellary* and *North Vellore*; *Pterocarpus Santalinus* in *Ganjām*, parts of *Kurnool* (*South*), *North Vellore* and *South Arcot*; *Swietenia Macrophylla* in *Malabar*; *Eucalyptus* in *Vizagapatam*; *Divi Divi* in *Gōdāvari Upper*; *Ceara rubber* in *Ganjām*; *Para rubber* in *Vizagapatam*; *Hardwickia binata* in *North Vellore* and *Edible date* in *Gōdāvari Upper*. The eleven varieties of Eucalyptus planted in the arboretum in Cairn Hill reserve, *Nilgiri* district, referred to in the previous year's report are reported to show very slow growth.

The following are other experiments conducted during the year:—

(1) Lac inoculation in *Kurnool West*, on certain varieties of trees with the aid of stick lac obtained from the Central Provinces.

(2) Mulberry cultivation started at Bairluti and Pecheruvu in *Kurnool West*. Both these experiments were undertaken principally with the object of providing permanent work for the Chentsus.

(3) Test of annual increment of tree growth—*Lower Gōdāvari* division.

(4) Test of the cost of floatage of dry bamboos in connection with Mr. Nelson's bamboo pulp scheme and of the effect of different felling methods on regeneration.

(5) *Exploitation.*

25. *System of management—Major produce.*—The various methods of the exploitation of major produce were, as in previous years, clear or regeneration fellings, thinnings, selection fellings, improvement fellings and coppice fellings. Clear or regeneration fellings were carried on mostly in *Gōdāvari Lower*, *Kistna*, *Kurnool West* and *South Arcot* and *Tanjore*. Thinnings were carried out in *Gōdāvari Lower*, *Kurnool East* and *West*, selection fellings were made as usual in timber coupes or where it was found necessary to eliminate dead and unsound trees. In the Southern Circle however only three coupes were worked under this system. Improvement and coppice fellings were undertaken principally in fuel coupes and in a few timber coupes and bamboo areas. Unregulated fellings under the permit system were made in Rampa in *Lower Gōdāvari* and in some unreserves. In reserves this antiquated system was chiefly confined to the extraction of bamboos in *Vizagapatam*, *Gōdāvari Upper* and *North Malabar*, of dead and wind blown trees in certain reserved forests of *South Malabar* of small timber and fuel in the *Nilgiris*, and of selected and marked timber for domestic requirements in two ranges of *Madura*.

26. *Minor produce and fodder greas.*—Minor produce was generally leased out. The manufacture of Catechu in *South Canara* and collection of miscellaneous produce in *North Coimbatore*, *Kollegal* and *Trichinopoly*, and in parts of the *Nilgiris*, *South Coimbatore* and *Nellore*, were carried out by departmental agency. Permits were issued in several districts for the removal of manure leaves, stones, gravel, etc. In the *Kurnools*, Chentsu agency was employed for the collection of minor produce. In *Ganjām*, the enjoyment of fruit trees in the majority of cases was left free to the Khonds. Fodder grass was removed on permit in *Madura*, *South Malabar* and *Coimbatore* and leased in *Gōdāvari* (*Lower*) and *Kistna*. In *Tinnevelly* grass was as in previous years included in minor produce leases. Ryots were allowed to cut and remove grass free from reserves in the three *Kurnools*, *Cuddapah*, *Chittoor*, *Nellore*, *Bellary*, *North* and *South Vellore*, *South Arcot* as also in *Anantapur* where however the concession was temporarily withdrawn in certain areas because the neighbouring villagers did not help in putting out fires. In *Bellary* 240 tons of hay were cut by a contractor against 250 tons in the previous year. The Military Department held leases of areas in *Bellary*, *Anantapur*, *East Cuddapah*, and *Vellore North* at Rs. 2 per ton of hay removed.

27. *Hay-making.*—Experimental hay-making operations in *East Cuddapah* and *Guntūr* referred to in the previous year's report, were abandoned. It was considered unnecessary for the Forest Department to continue these operations as the Military grass farms have for years been devoted to this industry.

28. *Grazing.*—The revenue from grazing and fodder grass, Rs. 6,96,334 was higher than in the previous year by Rs. 14,441. The increase in the Central Circle was due to a rise in the grazing revenue consequent on the imposition of enhanced fees for goat browsing in *Bellary*, to the extension of the Kancha system in *Nellore*, and to the increased number of grazing licenses issued in the upland taluks in *Guntūr*. The increase in the Western Circle was due to the introduction of the block system in the *Nilgiris*, to a larger number of foreign cattle licensed in *Kollegal* and to an increased demand for fodder grass in *North Coimbatore*. The other two circles showed a decrease; in the Southern Circle it was due to closure of reserves to goat browsing in *North Vellore*, *North Salem* and *Madura*, and in the Northern Circle chiefly in *Kistna* to the abolition of the parcellaire system, closure of reserves to goat browsing, closure to all animals of certain reserves under the provisions of working plans and to disafforestation of some reserves.

29. *Agency of exploitation.*—The subjoined table compares the outturn through all agencies of timber, fuel, bamboos and minor produce with that of the preceding year :—

Agency of exploitation.		Timber including sandal wood in cubic feet.		Fuel in cubic feet.	
		1913-14.	1914-15.	1913-14.	1914-15.
(1)		(2)	(3)	(4)	(5)
By Government Agency.	Northern Circle	280,305	250,028	1,459,059	868,935
	Central ,, ...	20,567	11,071	100,896	36,063
	Southern ,, ...	21,605	19 338	64,207	62,294
	Western ,, ...	256,604	437,121	1,634,965	640,149
	Total ..	579,081	717,558	3,259,127	1,607,441
By purchasers..	Northern Circle	1,813,9 8	1,288,226	3,877,747	4,459,851
	Central ,, ...	1,5*5,381	1,065,163	5,688,506	6,584,517
	Southern ,, ...	964,871	920,866	6,579,693	4,777,552
	Western ,, ...	370,524	468,886	2,532,559	3,937,306
	Total ..	4,734,744	3,743,141	18,678,505	19,759,226
By right holders	Northern Circle	189,507	184,136	792,444	582,195
	Central ,, ...	..	..	..	..
	Southern ,, ...	..	..	..	..
	Western ,, ...	49,077	36,175	..	..
	Total ..	238,584	220,311	792,444	582,195
By free grantees	Northern Circle	48,304	86,853	..	..
	Central ,, ...	84 180	38,543	..	..
	Southern ,, ...	47,810	90,493	26,689	3,984
	Western ,, ...	8,390	3,761	3 415	340
	Total ..	188,684	219,650	30,104	4,324
	Grand total ..	5,741,093	4,900,660	22,760,180	21,953,186

Agency of exploitation.		Bamboos.		Minor produce including grass and grazing value in rupees.	
		1913-14.	1914-15.	1913-14.	1914-15.
		(6)	(7)	(8)	(9)
By Government Agency.	Northern Circle	10,317	6,550	10,750	12,844
	Central ,, ...	196	226	18,941	14,701
	Southern ,, ...	277	201	706	531
	Western ,, ...	9,492	5,373	28,229	24,151
	Total ..	20,282	12,350	58,626	52,227
By purchasers..	Northern Circle	61,539	93,180	2,43,438	2,13,695
	Central ,, ...	11,060	14,945	6,92,586	6,31,218
	Southern ,, ...	112,914	101,789	4,29,093	3,82,215
	Western ,, ...	28,287	22,114	1,44,205	1,47,014
	Total ..	213,800	232,028	15,09,322	13,74,142
By right holders	Northern Circle	330	552	24,649	24,649
	Central ,, ...	..	..	150	151
	Southern ,, ...	..	..	2,389	2,105
	Western ,, ...	12	..	856	780
	Total ..	342	552	28,044	27,685
By free grantees	Northern Circle	454	671	78	2,836
	Central ,, ...	230	246	2,457	1,320
	Southern ,, ...	46	303	3,677	5,267
	Western ,, ...	169	67	470	27 0
	Total ..	899	1,287	6,682	9,693
	Grand total ..	235,323	246,217	16,02,674	14,63,747

30. There was a decrease in the output under all heads except bamboos. The increased outturn of timber from departmental working in the Western Circle was chiefly in the two divisions of *Malabar*, due to the exploitation of a larger area in the Begur Working Circle and to a larger yield from thinnings and wind-blown trees in teak plantations, and in the *Nilgiris* to the improvement fellings carried out in the Mudumalai Working Circle. The other three circles showed a decrease. Similarly timber removed by purchasers decreased, in all the circles, except the Western. The decrease was due in the Northern Circle to a lack of demand, in the Central to smaller removals from darkhast lands and in the Southern to a fall in the collection of tree value from lands assigned on darkhasts in *Madura* and *Tinnevelly* and also to the non-sale of timber coupes in *Madura*. The increase in the Western Circle was due mainly to extensive sales of trees on darkhast lands chiefly in *South Canara*.

The quantity of fuel extracted by departmental agency decreased in all the circles and the quantity removed by purchasers increased in all the circles except the Southern. In the Southern Circle the decrease in the output was due chiefly to the sale of a lesser number of coupes in *North Vellore*, *North Salem*, *Trichinopoly* and *Madura* and to the limited sale of trees on tank beds in *Madura* and *Tinnevelly*.

31. The value of bamboos extracted by departmental agency decreased in all the circles except the Central. The increase in the latter was due to a greater number of bamboos exploited for departmental purposes in *Bellary* and *East Cuddapah*. The value of bamboos removed by purchasers increased in the Northern and Central Circles; but this was counterbalanced by a decrease in the other circles. The decrease in the Southern Circle is due to the comparatively poor yield from coupes leased in *North Vellore*, to the failure of certain bamboo contractors in *North Salem* to pay the instalments due in time, and to the major portion of sale amounts of 1914–15 having been paid in the latter part of the previous year in *Trichinopoly*. The number of bamboos removed by purchasers increased by nearly 53 per cent. in the Western Circle mainly in *South Canara* due owing to the sale of coupes to contractors. The price however was lower but no explanation has been given of the fall.

32. The value of *minor produce* extracted by departmental agency decreased in all the circles except the Northern. In the Central Circle the fall is due to the failure to sell the Nux-vomica crop in *Nellore*, in the Southern to the extension of the contract system of working and in the Western to a poor crop of gallnuts, honey, etc., in *North Coimbatore*. The value of minor produce removed by purchasers decreased in all the circles except the Western. The decrease in the Northern Circle has not been explained. It was due in the Central Circle to the smaller collection of tangedu bark in *Bellary* and to the very marked fall in the demand for mica in *Nellore* owing to the war, and in the Southern to the stoppage of the trade in barks for the same reason, to the closure of reserves to goat browsing in *North Vellore*, *North Salem* and *Madura*, and to a fall in the amounts of miscellaneous leases. The increase in the Western Circle was due to larger grazing collections.

33. The estimated value of forest produce removed by right-holders was Rs. 53,291 against Rs. 59,978 and of produce granted free Rs. 29,073 against Rs. 24,959.

(6) *Financial results.*

34. The following statement exhibits the financial results of the year as compared with those of the previous year and with the average of the preceding five years :—

Years.	Revenue.	Expenditure. A. Conservancy works.	Expenditure. B. Establishments.	Total.	Surplus.
	RS.	RS.	RS.	RS.	RS.
1914–1915	40,17,852	13,89,296	15,47,355	29,36,651	10,81,201
1913–1914	40,48,842	13,62,460	14,78,482	28,40,942	12,07,900
Average for the * five years preceding 1913–1914.	40,39,801	18,65,190	13,50,297	32,15,487	8,24,314

* The corresponding figures given in the last year's report were incorrect—*vide* erratum at the end of the Appendix hereto.

The revenue fell by ·31 lakh while the expenditure under " A. Conservancy and Works " and " B. Establishments " rose by about ·27 and ·69 lakh respectively. The net result was a surplus of 10·81 lakhs which is 1·27 lakhs less than that of the previous year. The Southern Circle stands first, as in the previous years, with a surplus of 6·22 lakhs and the Central Circle next with 4·39 lakhs. The Northern Circle shows a surplus of ·39 lakh against ·45 lakh in the previous year while the Western Circle returns a deficit of ·19 lakh against a surplus of ·46 lakh.

35. In the preceding paragraphs the decreases under the different heads of Revenue have been explained in detail. Generally speaking they may be attributed to the influence of the war.

36. As regards expenditure the increase under " A. Conservancy and Works " (including refunds) was entirely in the Western Circle and was due to an extraordinary charge of Rs. 1,74,849 incurred in the acquisition of the Mudumalai and Kumbarakolli leased forests in the *Nilgiris*. Otherwise all circles show a uniform decrease owing to the change from departmental to contract working. In the Central and Southern Circles, the further reason assigned for the decrease is the short programme of construction of roads and buildings and the curtailment of planting operations and the discontinuance of the hay-making operations in *Cuddapah* and *Guntūr*.

Increased expenditure under B. Establishment was owing mainly to the following causes :—

(1) The debit to the Forest Department of the salaries of the special officers and their establishments appointed for the control of the Chentsus of *Kurnool* and for the formation of Forest panchayats ;

(2) the entertainment of a special establishment for selection of blocks in the Rampa country (Gōdāvari district) ;

(3) the entertainment of a temporary establishment for the Working Plans Officer throughout the year ;

(4) the payment in India of leave allowance to a Conservator on leave in England ; and

(5) the entertainment of additional temporary executive and protective staffs.

37. The following statement shows the financial results of the year after deducting capital expenditure not yielding an immediate outturn :—

	RS.
Gross revenue	40,17,852
Value of produce removed by right-holders and free grantees	82,364
Total ...	41,00,216
Gross expenditure	29,36,651
Deduct expenditure not yielding an immediate return :—	RS.
(1) Communications and buildings	2,92,755
(2) Cultural operations	72,846
(3) Working plans	6,187
(4) Settlement...	1,89,921
(5) Surveys	29,217
(6) Demarcation	33,843
Total ...	6,24,769
Balance of direct revenue producing expenditure	23,11,882
Surplus of revenue over expenditure directly chargeable to revenue	17,88,334

38. *Administration.*—Mr. R. C. C. Carr was Head of the Forest Administration up to the 8th January 1915 and was succeeded by Mr. H. F. W. Gillman, who was Forest Commissioner for the rest of the year. Mr. Carr toured in the districts of *Kurnool, the Nilgiris, Coimbatore, Malabar* and *Tinnevelly*. In the *Kurnool* district he conferred with the local officers regarding the control of the Chentsus, and the appointment of a special officer to formulate a regular scheme was the outcome of the conference. His visit to Nilambur (*Malabar*) was specially to consider the erection

of a standing camp for the Forest College. In *Tinnevelly* he discussed with the local officers the classification of Forests and the question of raising the grazing fees of some blocks in the district. Mr. Gillman toured in the *Kurnool*, *Cuddapah*, *Chittoor*, *Vizagapatam* and *North Arcot* districts and visited *Coimbatore*. The inspection notes of the tour in the first four districts have been printed and copies submitted to Government. The tour to *Kurnool* was chiefly in connection with grazing questions and those in *Cuddapah* and *Chittoor* with the protection of the red sanders forests. The tour in the *Vizagapatam* district was confined to the Madgole Agency and the outcome of the tour is the formulation of rules under section 26, since sanctioned by Government, to regulate the clearing of forest land for "podu" cultivation. At *Coimbatore* he was present at the final examination of the Forest College (1913—15) course and presided over a meeting of the Board of Visitors.

39. Messrs. A. W. Lushington and C. D. McCarthy were in charge of the Northern and Western Circles throughout the year. Mr. J. S. Battie held charge of the Southern Circle down to 2nd November 1914, when he retired from service and was succeeded by Mr. P. M. Lushington. The charge of the Central Circle was held by Mr. H. B. Bryant until 25th January 1915, and by Mr. S. Cox for the rest of the year.

The Conservators inspected all the District Forest offices and visited all the districts in their charge except *Trichinopoly*, *South Arcot* (Southern Circle), *South Canara*, *Coimbatore North and Central* (Western Circle), *Anantapur*, *Nellore* and *Cuddapah West* (Central Circle). All District Forest Officers except those of *Vizagapatam*, *Tinnevelly*, *South Malabar*, *the Nilgiris*, *Kollegal* and *Central Coimbatore* spent sufficient time in touring; the short touring of these officers has been satisfactorily explained. All range offices except one each, in *Cuddapah East*, *Cuddapah West*, *Nellore*, *Malabar North*, *Malabar South* and *the Nilgiris* were inspected by the District Forest Officers or their Assistants. The accounts of District Forest offices except those of *Kurnool East and West*, *Guntūr*, *Chingleput*, *South Canara* and *Coimbatore South and Central*, were inspected by auditors from the Accountant-General's office and the results were reported to be generally satisfactory.

40. The year under report was not marked by any event of special importance. Considerable progress was made with the classification of forests on the lines laid down by the Forest Committee and with the formation of panchayats for grazing forests of Class V. The classification of forests has been completed except in *Kurnool*, *Salem* and *South Arcot* Revenue districts for which districts however the areas of forests of classes III (plantations) and V (grazing forests) and VI (useless forests) have been determined. The results obtained so far are that out of a total area of 18,863 square miles of reserved forest in the Presidency at the beginning of the year, 67 square miles have been placed in class III, 1,468 in class V and 248 in class VI. As the scientific investigation of forests of other classes progresses, some further small additions are likely to be made to classes V and VI and it seems clear that at least one-tenth of the total forest area will eventually pass from the control of the Forest Department.

Progress in the formation of panchayats must necessarily be slow as care has to be taken in the initial selections made in each district so that failures which would discourage the people from taking up fresh areas, may be avoided as far as possible. During the year, 84 panchayats were actually working and the area of forest in their charge was 56 square miles. In addition, 30 panchayats have so far been sanctioned which are to commence working in 1915–16. The results of working are reported to have been generally satisfactory.

In February 1915 Mr. E. A. Davis, I.C.S., was placed on special duty for six months to promote the formation of panchayats and the period of his employment has since been extended by another six months. He has done valuable work in the districts of *Bellary*, *Cuddapah*, *Chittoor*, *Chingleput* and *South Arcot*. Another special officer, Mr. H. M. Hood, I.C.S., was appointed for a period of six months to prepare a scheme for the control of the Chentsus in the Kurnool district. This scheme has been received by the Board and will shortly be submitted to Government.

The proposals made by the Board in the previous year for the entire reorganisation of the Forest Department had to be withdrawn as requirements in the matter of the subordinate staff were found to have been under-estimated. Revised proposals will very shortly be submitted to Government.

41. The Board desires to record its high appreciation of the work of all the Conservators and endorses the opinions expressed in their reports on the work of the officers of the Imperial and Provincial service who have been specially commended. Mr. A. W. Lushington who has since retired after 32 years of meritorious service received the title of C.I.E. and Mr. E. C. M. Mascarenhas that of Rai Sahib.

42. *Madras Forest College, Coimbatore.*—Mr. F. L. C. Cowley Brown was Principal of the College throughout the year. Mr. C. B. Dawson filled the post of the Imperial Instructor of the College throughout the year and Mr. H. C. Bennett joined the post of second Imperial Instructor on 4th December 1914 and continued in the College for the rest of the year. The second batch of trained Rangers passed out of the College in June 1915, four receiving Honours Certificates, 24 the Higher Standard and one the Lower Standard Certificate; they were also examined in First Aid by the District Medical and Sanitary Officer of Coimbatore, and 25 were successful in gaming the St. John Ambulance Association Certificate. The Forest Commissioner presided on the occasion when the College prizes and certificates were awarded. During the year under report 32 students joined the College for the 1914–16 course; of these, two were withdrawn from the College for incapacity leaving 30 in residence at the close of the year. This number comprises 20 Government students (5 from each Circle), 4 students from Travancore, 1 from Mysore and 1 from Cochin, and 4 private students. The Hon'ble Mr. Cardew and the late Forest Commissioner visited the students at field work in head-quarters and the present Forest Commissioner inspected the camp and road construction operations at Ootacamund. The new buildings of the College were nearly complete during the year and were opened by His Excellency the Governor of Madras after its close. The Gass Forest Museum has been moved to the College buildings and taken charge of by the Principal. The Board of Visitors met at Coimbatore in June when the final examinations were held and passed a number of resolutions and a draft calendar of the College. The resolutions are now before Government and the calendar which has been modified in parts by Government is in the Press.

The College continued to do good work under the able Principalship of Mr. Cowley Brown who has since been promoted to the post of Conservator and the whole staff worked with zeal and energy.

43. *General-Rules under the Forest Act.*—The working of the timber and sandal-wood transit rules was satisfactory. The privileges allowed by the rules under section 26 of the Forest Act were generally availed of by the people and there were no complaints of any importance except from *Ganjām* where a serious abuse in connection with the valuation of tree growth was detected and the Deputy Ranger concerned dismissed and from *Kurnool West* where it is said that in the Yerramalai ranges a tendency exists to denude the unreserves for purpose of trade in timber and fuel.

Improvement of water-supply in Government grazing grounds (G.O. No. 1622, *dated 4th June* 1914).—The Circle-reports show that there is no necessity for improvement of water-supply in the Western Circle except in *Coimbatore* where some steps are said to have been taken and that in the Southern Circle the matter has not been properly attended to so far. In the Central Circle, wells and ponds were constructed, repaired or deepened in all the districts except *Bellary* and *Chingleput*. In the Northern Circle, steps were taken to improve water-supply in *Gōdāvari Lower* and *Kurnool South* but the reports from the other districts of the Circle are silent in the matter.

Opening of small coupes in the vicinity of villages for rural supply—Paragraph 20 *of the orders of Government on the Forest Committee's report.*—It is reported that there was no demand for such coupes in the Western Circle and that in *North Coimbatore* where one or two such coupes were opened or advertised, there were no offers; in the Central Circle coupes are being opened wherever there is a local demand; in the Southern Circle sale of fuel at the edge of the forests is generally carried on by coupe

contractors in *North Vellore, Trichinopoly* and *Madura*; in the Northern Circle the Conservator reports that in *Kurnool South* small coupes in grazing areas are being marked for sale and that in *Gōdāvari Lower* no demand has arisen: no information has been furnished on the point in regard to the other districts of the Circle.

Patrol system — Paragraph 22 (1) *of the Government Order on the Forest Committee's report.*—The patrol system is being introduced in many districts but with the present limited staff, the system cannot be effective as it is impossible to constitute the sections without either leaving a considerable portion of the forests without inspection or making the sections so large that inspection at one end would leave the rest of the section unprotected for too long a period; further there are not at present a sufficient number of intelligent Deputy Rangers to captain the gangs. When the reorganisation of the staff is sanctioned and brought into force, the system can be more widely extended.

Inducement of villagers to aid in the work of conserving adjoining forest — Paragraph 22 (2) *of the Government Order on the Forest Committee's report.*—A report has recently been submitted to Government by the Board on the subject of the formation of "Forest villages" and the inducement of ryots of these villages to aid in the conservancy of forests adjoining their villages and entrusted to their care, by a system of rewards and punishments. The orders of Government on the scheme are awaited.

Forest Conference.—Three conferences were held by the Forest Commissioner with Conservators during the year, two at Madras and one at Coimbatore, and various forest questions — chief among them being the reorganisation of the department — were discussed. Copies of the proceedings have been submitted to Government.

Forest Literature.—Mr. A. W. Lushington's book entitled "Vernacular list of trees, shrubs and woody climbers in the Madras Presidency" was published during the year. It is now in contemplation to prepare "Descriptive lists," on the lines referred to in Resolution XIV (iii) of the Board of Forestry, 1913, in a handy pocket book form, from the information contained in Mr. Lushington's work.

44. A memorandum of minor discrepancies found in the circle reports is appended.

(True Extract.)

G. T. H. Bracken,
Ag. Secretary.

To the Secretary to Government, Revenue Department, with appendices.

APPENDIX.

Northern Circle.

(i) Appendices C and D are not among the returns prescribed in the Forest Code for submission with the Forest annual report. They should not be printed in future circle reports.

(ii) *Form No.* 65 —The area of reserved lands, viz., 320,636 acres works out to 501 square miles and not 502 square miles as shown in column 13 of the return.

(iii) *Form No.* 67.—The entry in column 2 against Ganjām is not understood. If it represents the previous year's figure as explained in the foot-note it should not find place in that column, for the length of boundaries newly demarcated during the year should alone be entered therein.

(iv) *Form No.* 74.—(*a*) The figures 27,249, 283,534, and 45,760 in columns 7, 13 and 24 respectively against total in the set of figures above unreserved lands are mistakes for 27,239, 55,834; and 45,770.

(*b*) The figure 8,160 in column 11 against total of unreserved lands is a mistake for 8,155.

(*c*) The figures 34,564; 57,661; 320,919; and 45,760 in the columns 7, 11, 13 and 24 against grand total are mistakes for 34,554; 57,656; 93,219 and 45,770 respectively.

(*d*) The figure 17,148 in column 29 against total unreserved lands is a mistake in totalling for 18,148. The figure in the same column against grand total should be altered into 132,355.

(*e*) In the abstract statement at page XVI of the appendices, the figures 64,107; 587,753 and 866,732 are mistakes for 64,097; 360,053; and 639,022.

(v) *Form No.* 77.—The value of grazing and fodder grass removed by purchasers is shown as Rs. 1,20,502 in column 5 of the statement. In form No. 80, the revenue realized in the Circle from the same source is shown as Rs. 1,20,589. The discrepancy has not been explained.

(vi) *Form No.* 82.—The figure in the total column against Kurnool South works out to Rs. 1,07,722 and not Rs. 1,07,772.

(vii) *Form No.* 85.—The figures in the column "in favour of the year" against Gōdāvari Upper and Kurnool South should be 7,127 and 4,375 and not 9,927, and 5,492. The figure in the same column against total is wrong and should be omitted. In the total column "against the year" should be inserted 3,008.

CENTRAL CIRCLE.

(i) *Form No.* 69.—The area for which working plans have been completed, and approved by the Board in the Guntūr district during 1913–14 was shown as 41 square miles in column 2 of the return for that year. In the same column of the statement for 1914–15 it is entered as 8 square miles without any explanation. Similarly the area for which working plans have been sanctioned by the Board for Cuddapah East division during 1913–14 was shown as 109 square miles in column 2 of the return for that year. In column 2 of the statement for 1914–15 it is shown as 103 square miles. The discrepancy has not been explained.

(ii) *Form No.* 71.—Forest offences compounded by District Forest Officers or the Revenue Divisional Officers should be exhibited under the heading of acquittals in columns 11 and 12 and not in columns 9 and 10 — *vide* paragraph 2 of Government Order No. 1101, Revenue, dated 8th May 1915, communicated with Board's Proceedings Forest No. 108, dated 19th July 1915.

SOUTHERN AND WESTERN CIRCLES.

Form No. 71.—Forest offences compounded by District Forest Officers or Revenue Divisional Officers should be exhibited under the heading of acquittals in columns 11 and 12 and not in columns 9 and 10 — *vide* paragraph 2 of Government Order No. 1101, Revenue, dated 8th May 1915, communicated with Board's Proceedings Forest No. 108, dated 19th July 1915.

Erratum to paragraph 32 *of Board's Proceedings Forest No.* 226, *dated* 26*th November* 1914.

For the figures in the column "Average for the five years preceding 1912–13, viz., Rs. 40 39,801; Rs. 18,65,190; Rs. 13,50,297; Rs. 32,15,487, Rs. 8,24,314 *substitute* Rs. 39,87,652; Rs. 19,02,592; Rs. 12,69,150; Rs. 31,71,742; Rs. 8,15,910 respectively.

Order—No. 95, Revenue, dated 15th January 1916.

Forest No. 7.

With the proceedings read above the Board submits, with a covering review, the annual report on forest administration for the year ending 30th June 1915. The volume of the statistical portion of the report has been substantially reduced as a result of the examination referred to as in progress in paragraph 1 of the Government Order on the report for the previous year. There has been a reduction of some fifty pages by the discontinuance of statements found to be unnecessary and the simplification of other appendices the retention of which in a modified form was considered to be essential. The Government will now proceed to notice some of the more salient matters dealt with in the report.

2. *Paragraph* 3 *of the Board's resolution.*—The Board rightly calls attention to the slow rate at which settlement operations have been proceeding in the Upper Gōdāvari district; the Government trust that the instructions issued will remedy this defect.

3. *Paragraph* 4 *of the Board's resolution.*—The separate report called for with regard to the need to carry out the demarcation of the proposed new boundary between the Nilgiris and Central Coimbatore should be submitted to Government with the recommendations of the Board.

4. *Paragraph* 5 *of the Board's resolution.*—The Government have not received, and will be glad now to be supplied with copies of the recently published index map of the Madras Presidency showing the limits of controlling and executive charges; three copies should be furnished.

5. *Paragraphs* 6 *and* 7 *of the Board's resolution.*—The report furnishes evidence of the advantages of employing special officers to prepare working plans and the Government agree with the Board that there is ample scope for the entertainment of one such officer in each circle. Work of this character is of a very responsible nature and the personnel selected for it should be of the highest quality available.

6. *Paragraph* 8 *of the Board's resolution.*—The entertainment of special temporary engineers for the investigation and construction of forest roads marks a new departure of considerable importance. In order to secure the full commercial return possible from the Government forests it is essential to provide adequate communications but in the past for lack of thorough investigation and expert assistance there has been much wasteful expenditure on roads and bridle-paths. The right policy to pursue has been indicated by the Forest Commissioner in his inspection notes on the Kurnool district; attention should be concentrated on roads, in existence or to be constructed, which connect the most important working areas with the neighbouring markets and endeavours should be made to put such roads into thoroughly good working order. Well-considered expenditure in this direction should make valuable coupes accessible and remove the difficulties in transport which Conservators cite in more than one instance as preventing district officers from carrying out the prescriptions of working plans.

7. *Paragraphs* 10 *to* 12 *of the Board's resolution.*—In these paragraphs the Board, while referring to the continuing increase in the number of forest offences reported, anticipates improvement from the disafforestation of useless reserves and the transfer of grazing areas to the management of panchayats, measures which are now in progress, and the Government share the Board's hopes on this subject. Attention is also drawn to the importance of devising methods to secure the co-operation of the people living in or near the reserves in the work of forest conservancy. The circle reports contain numerous references to the value of such co-operation on the part of hill tribes and the Government in passing orders on proposals recently received from the Board with regard to the lines of grazing policy have laid special stress on the advantages likely to be derived from the introduction of a judicious system of rewards for successful co-operation in conservancy coupled with penalties for failure to render that amount of assistance which may reasonably be required from the local residents. The underlying principle should be to graduate the incidence of grazing revenue with reference to the degree of co-operation from the cattle-owners. A further gradual reduction in the number of forest offences may perhaps be expected when the development of communications and the much-needed reorganization of the staff render it feasible to extend the area under intensive working; practical experience in various districts has proved that crime tends to decrease as the forests are brought under systematic working, whether the agencies employed be departmental or consist of contractors.

8. *Paragraphs* 16 *to* 18 *of the Board's resolution.*—The improvement in the degree of success ascribed to measures of fire protection would seem from the circle reports to have been largely attributable to seasonal conditions and perhaps also to the incomplete reporting of fires. The assistance rendered by the Malayalis in the Javadi and Chitteri hills is however matter for special congratulation.

9. *Paragraph* 19 *of the Board's resolution.*—As stated in paragraph 7 above the Government have recently laid down the lines on which grazing shall in future be dealt with. Some enhancement in the scale of grazing fees is inevitable, not only in order to reduce the grazing incidence which is frequently so high as to entail continuous deterioration of the forest growth, but also to provide for the system of rewards and penalties by which it is hoped to enlist the co-operation of the people. The exclusion of goats from reserved forests is essential to efficient reservation and this condition is now within measurable reach.

10. *Paragraph* 20 *of the Board's resolution.*—It is much to be regretted that there has been a further extension of the spike disease which does so much damage to sandal and the Government trust that the special measures in progress in Kollegal, which are mentioned in paragraph 19 of the Western Circle report, will go some way towards indicating efficient methods of prevention. This is the more important in view of the more rapid rate at which sandal is now observed to be spreading by natural reproduction.

11. *Paragraph 22 of the Board's resolution.*—In this paragraph the Board brings out the thorough manner in which effect has been given to the policy commended by Mr. Beadon Bryant of restricting expenditure on artificial reproduction.

12. *Paragraphs 25 to 33 of the Board's resolution.*—As these paragraphs show, another direction in which the policy laid down by Government has been energetically carried out is the extension of the employment of contract agencies for the exploitation of the forests.

13. *Paragraphs 34 to 37 of the Board's resolution.*—The financial result of the year's working was a surplus of 10·81 lakhs. The decrease of approximately a lakh and a half as compared with the record figure reached in the preceding year is accounted for by a single altogether exceptional item, namely, the expenditure of 1·75 lakhs on the permanent acquisition of a leased forest. But for this item the surplus would have been larger than in any previous year. The figures given in paragraph 37 of the Board's resolution endeavour to show the surplus of revenue over expenditure not properly chargeable to capital heads and similar calculations are to be found in paragraph 41 of the report for the Northern Circle. The Government would be glad if in future reports this aspect of the financial results could be brought out more clearly. It would seem necessary, however, to distinguish more precisely between outlay which a business man would charge against capital and items of expenditure not yielding an immediate return which are nevertheless of a recurring nature; for instance, the first item of deduction in the Board's figures apparently consists of the whole outlay on communications and buildings, though a considerable proportion thereof presumably relates to annual maintenance charges. Subject to these remarks, the Government would welcome an examination of the question what proportion of the annual expenditure may properly be regarded as in the nature of capital outlay justified by an ultimate return of interest at a fair rate.

14. *Paragraph 40 of the Board's resolution.*—In this paragraph the Board furnishes particulars of the progress made with the classification of forests and the formation of forest panchayats in accordance with the recommendations of the Forest Committee. The classification work has now nearly been completed and the Board states that at least one-tenth of the present forest area will ultimately pass from the control of the Forest department, mostly into the hands of panchayats. In the formation of these bodies valuable assistance has been rendered by Mr. E. A. Davies, I.C.S., who was placed on special duty for the purpose. The Board reports that the results of the working of the 84 panchayats so far formed have been generally satisfactory and the Government hope that this important new development will achieve a fair measure of success. The circle reports show that in certain cases the management has left very much to be desired but it is too early at present to form any final opinion on the prospects of the movement. The tendency which has been shown by some panchayats in the Coimbatore district to admit numbers of cattle in excess of the grazing possibilities was perhaps to be expected at first but on the other hand it is stated that a feature of panchayat management in the same district is the immediate and substantial enhancement of the scale of grazing fees which suggests that the evil of indiscriminate grazing is recognized by the villagers. The old Government fee of As. 3 per head has been raised in some cases to Re. 1 and even Rs. 1-8 per head.

15. *Reorganization of the Forest department.*—The Government await the revised proposals which the Board is about to submit and trust that financial conditions will improve sufficiently to admit of the early introduction of the reorganization which by common consent is necessary. Apart from the crying need for additions to the superior controlling staff, especially working plans officers, and a larger establishment of trained subordinates, the effective application of the patrol system commended by the Forest Committee is impossible with the present limited protective staff; as observed in paragraph 66 of the Central Circle report, however, such patrols cannot altogether take the place of resident staff, the latter being necessary to supply sufficient local information. In so far as the contemplated reorganization improves the conditions and prospects of service, it should also go some way to raise the standard of conduct, which in the lower grades at present leaves much to be desired.

Much consideration was devoted during the year under report to the elaboration of amendments to the Madras Forest Code designed to place District Forest Officers

in a position of greater independence and responsibility than they have hitherto enjoyed. The Board's final proposals on this important matter have now been fully examined and the orders of Government will shortly issue.

16. The working of the Forest College at Coimbatore continued to be satisfactory.

17. Finally the Government desire to endorse the Board's remarks on the good work of the Conservators, the Principal of the College and other departmental officers and to express their appreciation of the energy and ability with which the department has been controlled by the Forest Commissioner himself.

(True Extract.)

L. DAVIDSON,
Secretary to Government.

To the Board of Revenue, Land Revenue (Forests).
,, Accountant-General.
,, Government of India, Department of Revenue and Agriculture (with C.L.).
,, Inspector-General of Forests (with C.L.).
Editors' Table.

AGENTS FOR THE SALE OF MADRAS GOVERNMENT PUBLICATIONS.

IN INDIA.

R. CAMBRAY & Co., Calcutta.
A. C. BARRAUD & Co., Mount Road, Madras.
E. M. GOPALAKRISHNA KONE, Pudumantapam, Madura.
HIGGINBOTHAMS (Limited), Mount Road, Madras.
V. KALYANARAMA IYER & Co., Esplanade, Madras.
G. C. LOGANATHAM BROTHERS, Guardian Press, Madras.
S. MURTHY & Co., Kapalee Press, Madras
G. A. NATESAN & Co., Madras.
THE SUPERINTENDENT, NAZAIR KANUN HIND PRESS, Allahabad.
P. R. RAMA IYER & Co., Madras.
D. B. TARAPOREVALA SONS & Co., Bombay.
THACKER & Co. (Limited), Bombay.
THACKER, SPINK & Co., Calcutta.
S. VAS & Co., Broadway, Madras.

IN ENGLAND.

B. H. BLACKWELL, 50 & 51, Broad Street, Oxford.
CONSTABLE & Co., 10, Orange Street, London, W.C.
DEIGHTON, BELL & Co. (Limited), Cambridge.
T. FISHER UNWIN, No. 1, Adelphi Terrace, London, W.C.
GRINDLAY & Co., 54, Parliament Street, London, S.W.
KEGAN PAUL, TRENCH, TRÜBNER & Co. (Limited), 68-74, Carter Lane, London, E.C.; 25, Museum Street, London, W.C.
HENRY S. KING & Co., 65, Cornhill, London, E.C.
P. S. KING & SON, 2 & 4, Great Smith Street, Westminster, London, S.W.
LUZAC & Co., 46, Great Russell Street, London, W.C.
M. B. QUARITCH, 11, Grafton Street, London, W.
W. THACKER & Co., 2, Creed Lane, London, E.C.

ON THE CONTINENT.

ERNEST LEROUX, 28, Rue Bonaparte, Paris.
MARTINUS NIJHOFF, The Hague, Holland.